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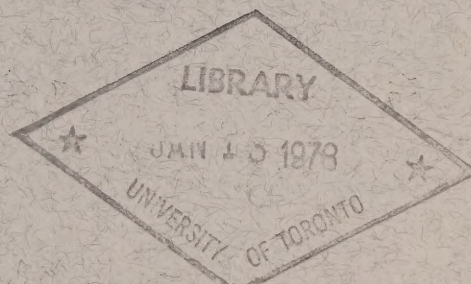
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-77R17

**OCEANOGRAPHIC OBSERVATIONS
AT OCEAN STATION P
(50°N, 145°W)**

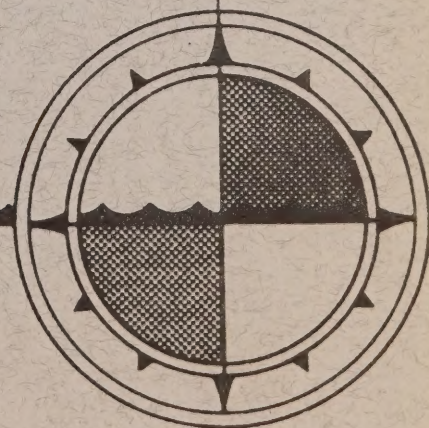
VOLUME 81
25 March - 12 May 1977

by

Seakem Oceanography Ltd.



**INSTITUTE OF OCEAN SCIENCES, PATRICIA BAY
Sidney, B.C.**



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OCEANOGRAPHIC OBSERVATIONS AT OCEAN STATION P (50°N, 145°W)

Volume 81

25 March - 12 May 1977

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October 1977

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ABSTRACT

Physical, chemical and biological oceanographic observations are made from the weather ship at Ocean Weather Station Papa, and between Esquimalt and Station Papa, on a routine continuing basis. Physical oceanography data only are shown, including surface observations and profiles obtained with bottle casts and conductivity-temperature-pressure instruments.

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INTRODUCTION

Canadian operation of Ocean Weather Station P (Latitude $50^{\circ}00'N$, Longitude $145^{\circ}00'W$) was inaugurated in December, 1950. The station is occupied primarily to make meteorological observations of the surface and upper air and to provide an air-sea rescue service. The station is manned by two vessels operated by the Marine Services Branch of the Ministry of Transport. They are the CCGS Vancouver and the CCGS Quadra. Each ship remains on station for a period of six weeks, and is then relieved by the alternate ship, thus maintaining a continuous watch.

Bathythermograph observations have been made at Station P since July 1952. A program of more extensive oceanographic observations commenced in August 1956. This was extended in April 1959, by the addition of a series of oceanographic stations along the route to and from Station P and Swiftsure Bank. These stations are known as Line P stations. The number of stations on Line P has been increased twice and now consists of twelve stations (Fig. 1). Bathythermograph observations and surface salinity sample collections, in addition to being made on Line P oceanographic stations, are also made at odd meridians at $40'$, i.e. $139^{\circ}40'W$, $141^{\circ}40'W$, etc. These stations are known as Line P BT stations. Data observed prior to 1968 have been indexed by Collins et al (1969).

The present record includes hydrographic, continuously sampled STP and surface salinity and temperature data collected from the CCGS Vancouver during the period 25 March to 12 May 1977.

All physical oceanographic data have been stored by the Canadian Oceanographic Data Centre (CODC), 615 Booth Street, Ottawa, Ontario, Canada. Requests for these data should be directed to CODC.

Biological and productivity data are published in the Manuscript Report series of the Fisheries Research Board of Canada (FRB), Pacific Biological Station, Nanaimo, British Columbia, Canada. Requests for these data should be directed to FRB.

Marine geochemical data are for the Ocean Chemistry Group, Ocean and Aquatic Sciences, Environment Canada, Institute of Ocean Sciences, Patricia Bay, P.O. Box 5000, Sidney, B.C. V8L 4B2.

PROGRAM OF OBSERVATION FROM CCGS VANCOUVER, 25 MARCH - 12 MAY 1977 (P-77-3)
(CODC Ref. No. 15-77-003)

Oceanographic observations were made by Mr. B. Canning of Seakem Oceanography Ltd., Victoria, B.C.

En Route to Station P

Line P Stations 1 to 6 and 12 were occupied and an STP profile made to near bottom or 1500 metres. Stations 7 to 11 were cancelled due to rough weather. No hydrocasts were done.

Samples for nitrate, nutrient, alkalinity and total CO_2 were taken from the seawater loop at all whole stations, with salinity taken at whole and half stations 1 to 6½ and 12. Surface bucket salinities were taken at whole and half stations 1 to 5, 7 to 11½ and 12½. Surface bucket temperatures were taken at all whole and half stations.

Surface tarball tows were made at Stations 1, 3, and 5.

The thermosalinograph, surface temperature recorder and PCO_2 system were run continuously.

Mechanical BT's or XBT's were taken at all whole and half stations.

On Station P

The oceanographic program was carried out as follows:

Physical Oceanography:

- 1) Profiles of salinity, temperature and oxygen were obtained from 6 hydrographic casts to near bottom (4200 metres).
- 2) 32 STP profiles to 1500 metres (or near bottom) were obtained.
- 3) BT's or XBT's were taken every three hours to coincide with meteorological observations, encoded and transmitted according to the IGOSS format.
- 4) Salinity samples were collected daily at 0000 hrs GMT from the seawater loop (or from a bucket when the loop was not operational).

Marine Geochemistry:

- 1) Nutrient and salinity samples were collected daily at 0000 hrs GMT from the seawater loop. Two profiles for nutrients to 500 m and one profile for tritium to 500 m were taken. One loop sample and one rainwater sample were also collected for tritium.
- 2) Alkalinity and total CO_2 samples were taken about every 3 days from the seawater loop or bucket, and in addition, 2 profiles each to 500 m were taken.

- 3) Air CO₂ samples were taken in quadruplicate at weekly intervals.
- 4) 4 surface tarball tows were completed.
- 5) 2 seawater C-14 samples were extracted from 45 gallons of seawater taken from the seawater loop along with 2 seawater C-13 and 2 air C-13 samples.
- 6) PCO₂ carboys were filled every 3 days when the loop system was operational.

Biology and Productivity:

Samples were obtained as follows:

- 1) 30 - 150 metre vertical plankton hauls.
2 - 1200 metre vertical plankton hauls.

3 groups of subsurface plankton hauls were taken on 3 consecutive nights at sunset.
- 2) 2 profiles to 200 metres for each of plant pigment, nitrate and C₁₄ productivity were obtained, as well as 3 surface samples each.

On April 16, 1977, an emergency run was made into Quatsino Sound. Salinity samples were taken every three hours. The PCO₂ system, thermosalinograph and surface temperature recorder were run continuously. The ship returned to Station P on April 22.

En Route from Station P

An STP profile was made at Stations 12, 10 to 6 and 4 to 1. Nutrient, nitrate, alkalinity and total CO₂ samples were taken from the seawater loop at all whole stations. Salinity samples were taken at all whole and half stations. Bucket salinity samples were taken at Stations 5 to 1. Surface bucket temperatures were taken at all whole and half stations. Tarball tows were taken at Stations 12, 10, 8, 6, and 4. Mechanical BT's or XBT's were taken at all whole and half stations. The PCO₂ system, thermosalinograph, and surface temperature recorder were run continuously.

Observations for Other Agencies

- 1) Marine mammal observations were made by the ship's officers for Mr. I. McAskie, Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, British Columbia, Canada.
- 2) Bird observations were made by the ship's officers for Dr. M. Myres, University of Alberta, Calgary, Alberta, Canada and Mr. J. Guiguet, Curator of Birds and Mammals, Provincial Museum, Department of Provincial Secretary and Travel Industry, Victoria, British Columbia, Canada.
- 3) Air CO₂ samples were taken weekly in duplicate for Scripps Institution of Oceanography, La Jolla, California, U.S.A.

Data were processed for publication by Ms. M. Sainsbury of Seaken Oceanography Ltd., Victoria, B.C.

OBSERVATIONAL PROCEDURES

Observations for salinity, oxygen and temperature from all hydrographic casts, including the surface, were obtained with Niskin water sample bottles equipped with either Richter and Wiese and/or Yoshino Keiki Co. reversing thermometers. Two protected thermometers were used on all bottles and one unprotected thermometer was used on each bottle at depths of 300 m or greater. The accuracy of protected reversing thermometers is believed to be $\pm 0.02^{\circ}\text{C}$.

The daily surface water temperature was measured from a bucket sample using a deck thermometer of $\pm 0.1^{\circ}\text{C}$ accuracy. The daily surface salinity samples were obtained from the seawater loop. When the seawater loop was not operational these samples were obtained with a bucket, and are indicated with a 'b' in this data record.

Salinity determinations were made aboard ship with either an Autolab Model 601 Mark III inductive salinometer or a Hytech Model 6220 lab salinometer. Accuracy using duplicate determinations is estimated to be $\pm 0.003^{\circ}/\text{oo}$.

Depth determinations were made using the "depth difference" method described in the U. S. N. Hydrographic Office Publications No. 607 (1955). Depth estimates have an approximate accuracy of ± 5 m for depths less than 1000 m, and $\pm 0.5\%$ of depth for depths greater than 1000 m.

The dissolved oxygen analyses were done in shipboard laboratory by a modified Winkler method (Carpenter, 1955).

Line P engine intake continuous temperature on both ships were recorded by a Honeywell Elektronik 15 Recorder. The temperature probe is at a depth of approximately 3 metres below the sea surface and the instrument accuracy is believed to be $\pm 0.1^{\circ}\text{C}$.

Each ship is equipped with a Plessey Model 6600-T thermosalinograph which is used, on Line P, for continuous recording of surface temperatures and salinities from the ship's seawater loop. The temperature probe is mounted at the seawater loop intake (approximately 3 metres below the surface) and the salinity probe and recorder are situated in the dry lab. The accuracy of this instrument is believed to be $\pm 0.1^{\circ}\text{C}$ for temperature and $\pm 0.1^{\circ}/\text{oo}$ for salinity.

STP profiles were taken with a Guildline Model 8700 STP system.

COMPUTATIONS

All hydrographic data were processed with the aid of an IBM 370 computer and a UNIVAC 1100 computer. Reversing thermometer temperature corrections, thermometric depth calculations and accepted depth from the "depth difference" method were computed. Extraneous thermometric depths caused by thermometer malfunctions were automatically edited and replaced. A Calcomp 565 Offline Plotter was used to plot temperature-salinity, and temperature-oxygen diagrams, as well as plots of temperature, salinity and dissolved oxygen vs \log_{10} depth. These plots were used to check the data for errors.

Missing hydrographic data were obtained using a weighted parabolas interpolation method (Reiniger and Ross, 1968). These data are indicated with an asterisk in this data record.

Data values which we suspect but which we have included in this data record are indicated with a plus. These data have been removed from punch card and magnetic tape records.

Analog records from the salinity-temperature-pressure instrument have been machine digitized, then replotted using the Calcomp plotter.

Digitization was continued until original and computer plotted traces were coincident. Temperature and salinity values were listed at standard pressures; integrals (depths, geopotential anomaly, and potential energy anomaly) were computed from the entire array of digitized data.

The headings for the data listings are explained as follows:

PRESS	is pressure (decibars)
TEMP	is temperature (degrees Celsius)
SAL	is salinity (parts per thousand)
DEPTH	is reported in metres
SIGMA-T	is specific gravity anomaly
SVA	is specific volume anomaly
THETA	is potential temperature (degrees Celsius)
SVA (THETA)	is potential specific volume anomaly
DELTA D	is geopotential anomaly (J/kg)
POT EN	is potential energy in units of 10^8 ergs/cm ²
OXY	is the concentration of dissolved oxygen expressed in millilitres per litre
SOUND	is the velocity of sound in m/sec.

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- Collins, C.A., R.L. Tripe, D.A. Healey and J. Joergensen, 1969. The time distribution of serial oceanographic data from the Ocean Station P programme. *Fish. Res. Bd. Can. Tech. Rept. No. 106.*
- MacNeill, M., 1977. A study of anomalous salinity and oxygen values in the deep water at Ocean Station P from 1960-1976 (unpublished manuscript). *Pacific Marine Science Report* 77-9.
- Reiniger, R.F. and C.K. Ross, 1968. A method of interpolation with application to oceanographic data. *Deep Sea Res.*, 15: 185-193.
- U. S. N. Hydrographic Office, 1955. *Instruction Manual for oceanographic observations*, Publ. No. 607.

LOG OF HYDROGRAPHIC AND STD OBSERVATIONS

Consec #	Positions	Date (Z)	Time (Z)	STD (m)	Hydrocast (m)	Comments
1	125-33 ⁰ W	25/3/77	2330	80		
2	126-00 ⁰ W	26/3/77	0130	80		
3	126-40 ⁰ W	26/3/77	0345	1,200		
4	127-40 ⁰ W	26/3/77	0745	1,500		
5	128-40 ⁰ W	26/3/77	1135	1,475		
6	130-40 ⁰ W	26/3/77	1855	1,460		
7	142-40 ⁰ W	28/3/77	1405	1,450		
8	P	29/3/77	0005	1,525		
9	P	29/3/77	1715		4,200	T,S,O,Alk.
10	P	29/3/77	2030	1,505		
11	P	30/3/77	1735	1,500		
12	P	31/3/77	1925	1,500		
13	P	1/4/77	1805	1,490		
14	P	2/4/77	1755	1,365		
15	P	3/4/77	1750	1,410		
16	P	4/4/77	1725		4,200	T,S,O,Alk.
17	P	4/4/77	2055	1,555		
18	P	5/4/77	1740	1,480		
19	P	6/4/77	1730	1,595		
20	P	7/4/77	1730	1,325		
21	P	8/4/77	1750	1,510		
22	P	9/4/77	1740	1,310		
23	P	10/4/77	1800	1,330		
24	P	11/4/77	1810	1,445		
25	P	12/4/77	1745	1,510		
26	P	12/4/77	2050		4,200	T,S,O,Alk.
27	P	13/4/77	1735	1,500		
28	P	22/4/77	1720		4,200	T,S,O,Alk.
29	P	22/4/77	2035	1,500		
30	P	23/4/77	1805	1,500		
31	P	24/4/77	1730	1,500		
32	P	25/4/77	1715	1,500		
33	P	26/4/77	1805	1,510		
34	P	27/4/77	1730	1,500		
35	P	28/4/77	1725		4,200	T,S,O,Alk.
36	P	28/4/77	2100	1,505		
37	P	29/4/77	1720	415		
38	P	29/4/77	1730	1,500		
39	P	30/4/77	1740	1,500		
40	P	1/5/77	2145	1,355		
41	P	4/5/77	1810	1,425		
42	P	5/5/77	1715		4,200	T,S,O,Alk.
43	P	5/5/77	2040	1,500		
44	P	6/5/77	1800	1,500		
45	P	7/5/77	1745	1,500		
46	P	8/5/77	1750	1,500		
47	142-40 ⁰ W	9/5/77	0625	1,300		

LOG OF HYDROGRAPHIC AND STD OBSERVATIONS (continued)

Consec #	Positions	Date (Z)	Time (Z)	STD (m)	Hydrocast (m)	Comments
48	138-40 ⁰ W	9/5/77	1810	1,500		
49	136-40 ⁰ W	10/5/77	0030	1,500		
50	134-40 ⁰ W	10/5/77	0640	1,420		
51	132-40 ⁰ W	10/5/77	1305	1,500		
52	130-40 ⁰ W	10/5/77	1910	1,475		
53	127-40 ⁰ W	11/5/77	0415	1,500		
54	126-40 ⁰ W	11/5/77	0805	1,200		
55	126-00 ⁰ W	11/5/77	1030	90		
56	125-33 ⁰ W	11/5/77	1210	100		

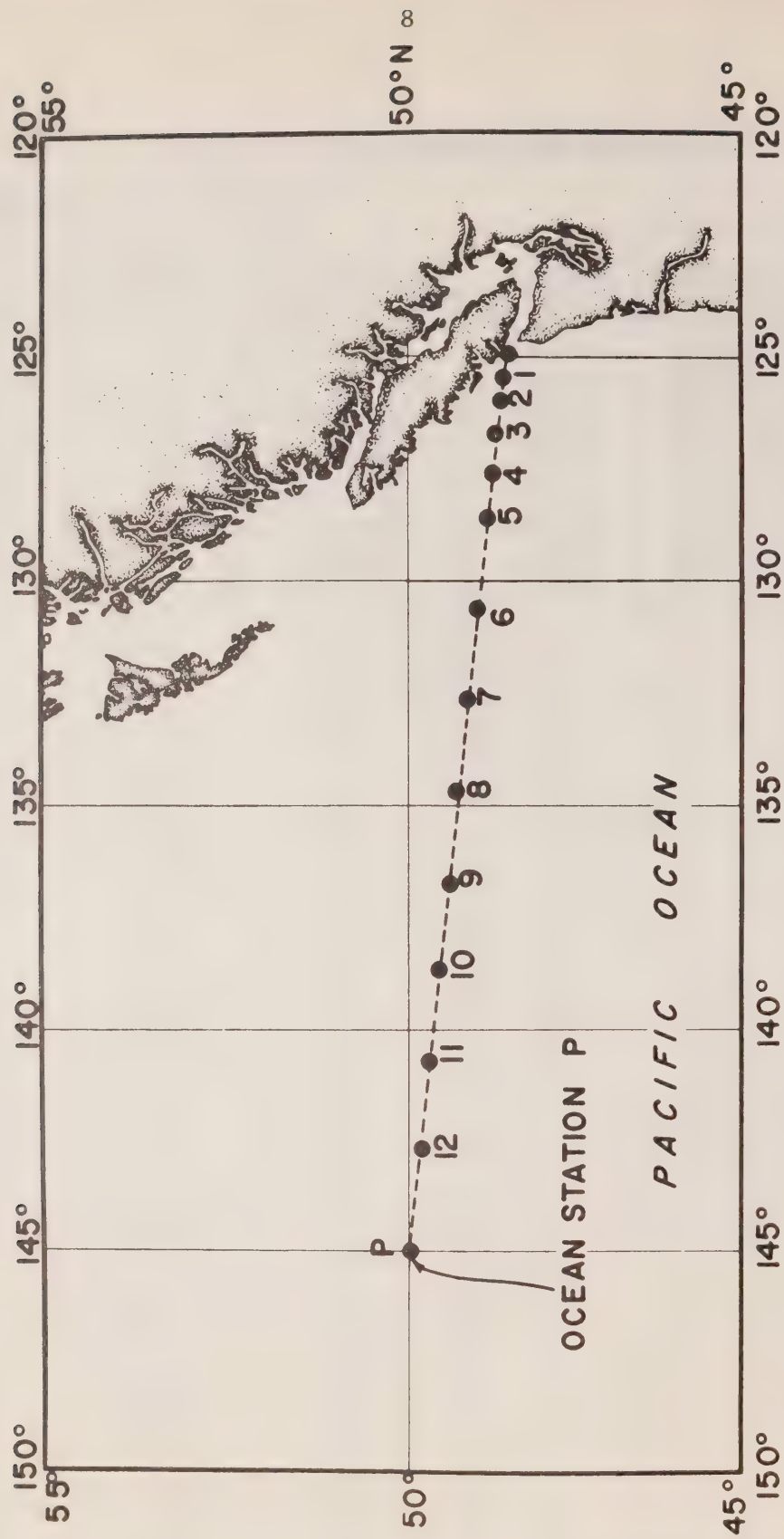


Fig. 1 Chart showing Line P station positions.

Oceanographic Data Obtained on Cruise P-77-3

(CODC Reference No. 15-77-003)

Results of Hydrographic Observations

(P-77-3)

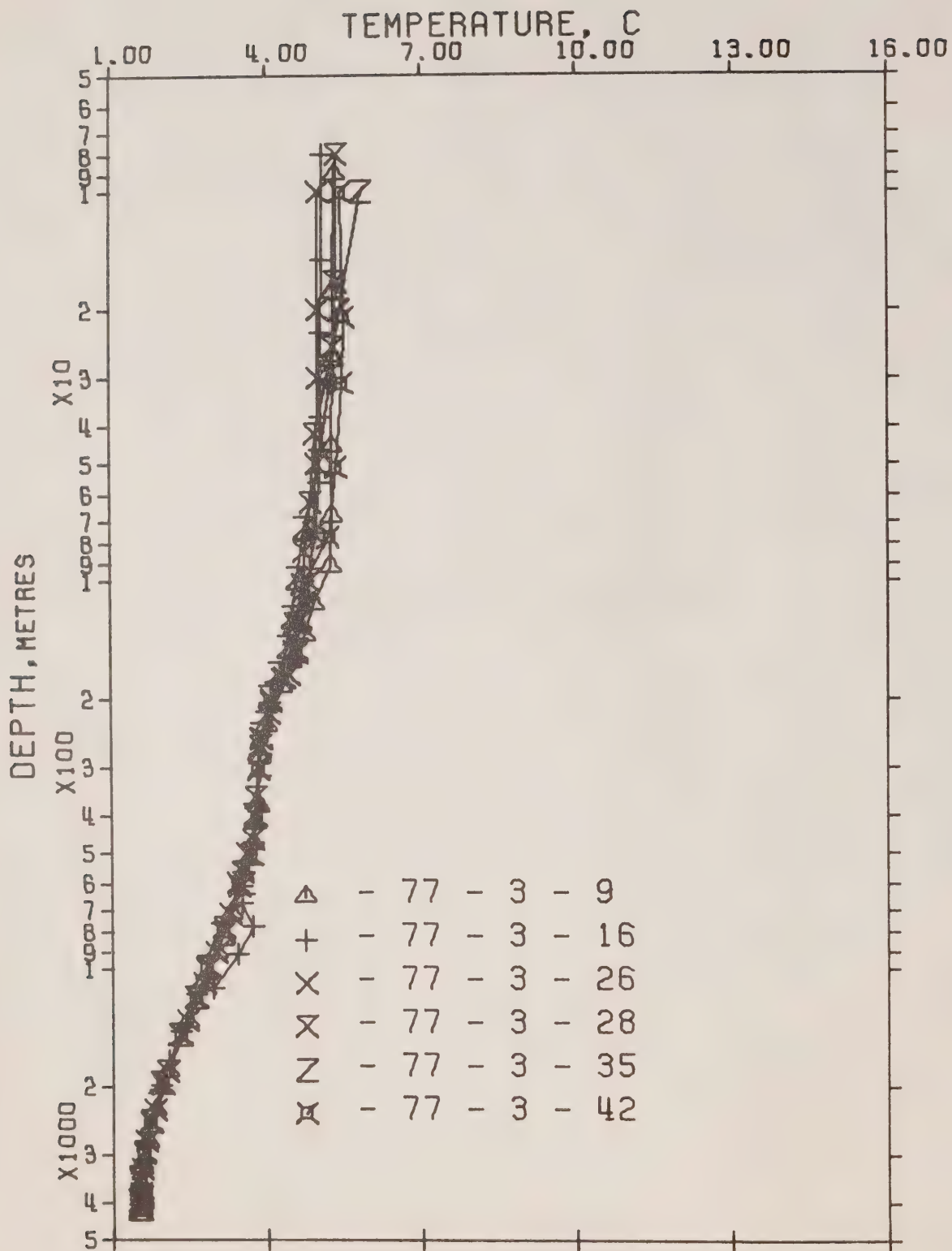


Figure 2. Composite plot of temperature vs \log_{10} depth for Station P. P-77-3.

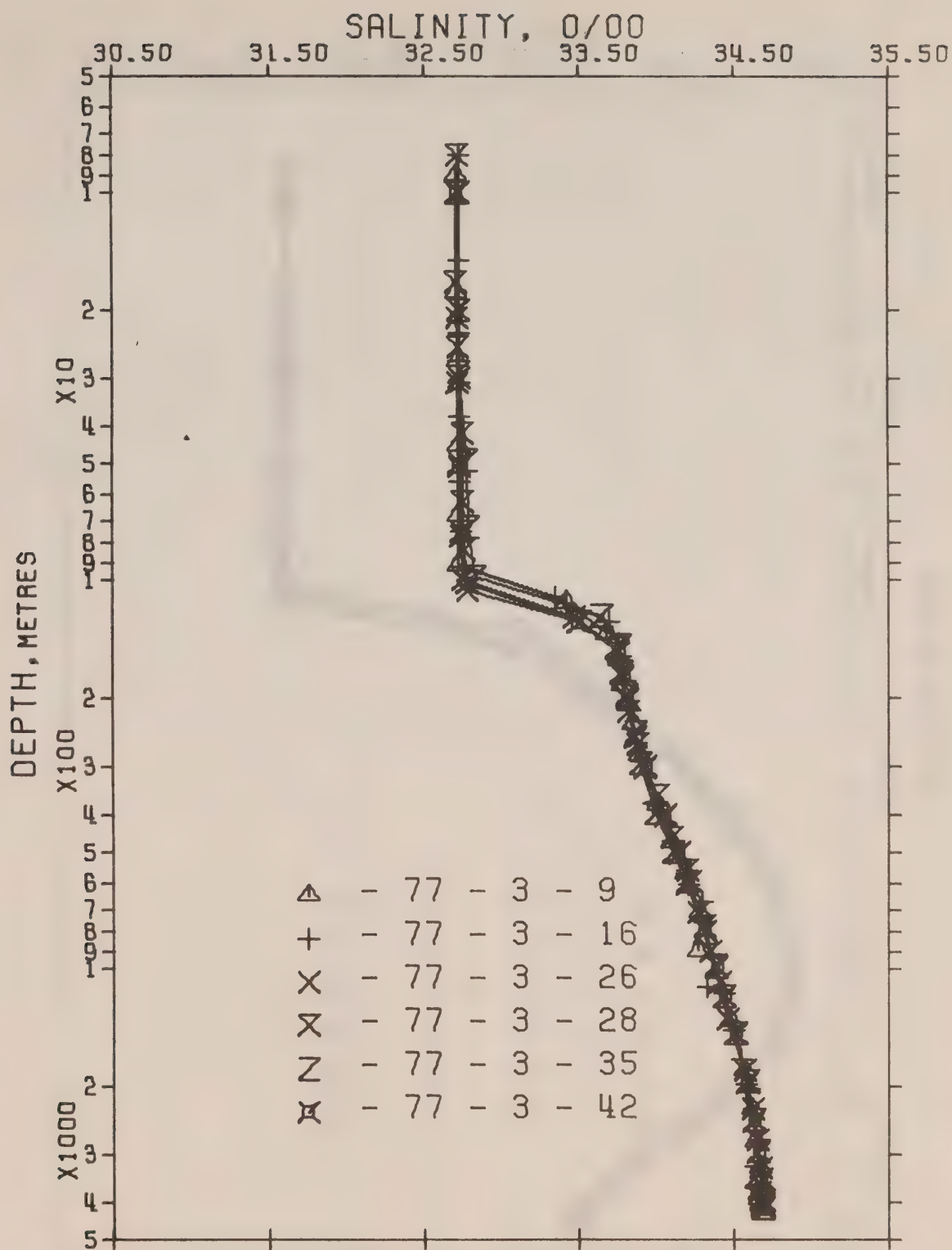


Figure 3. Composite plot of salinity vs \log_{10} depth for Station P. P-77-3.

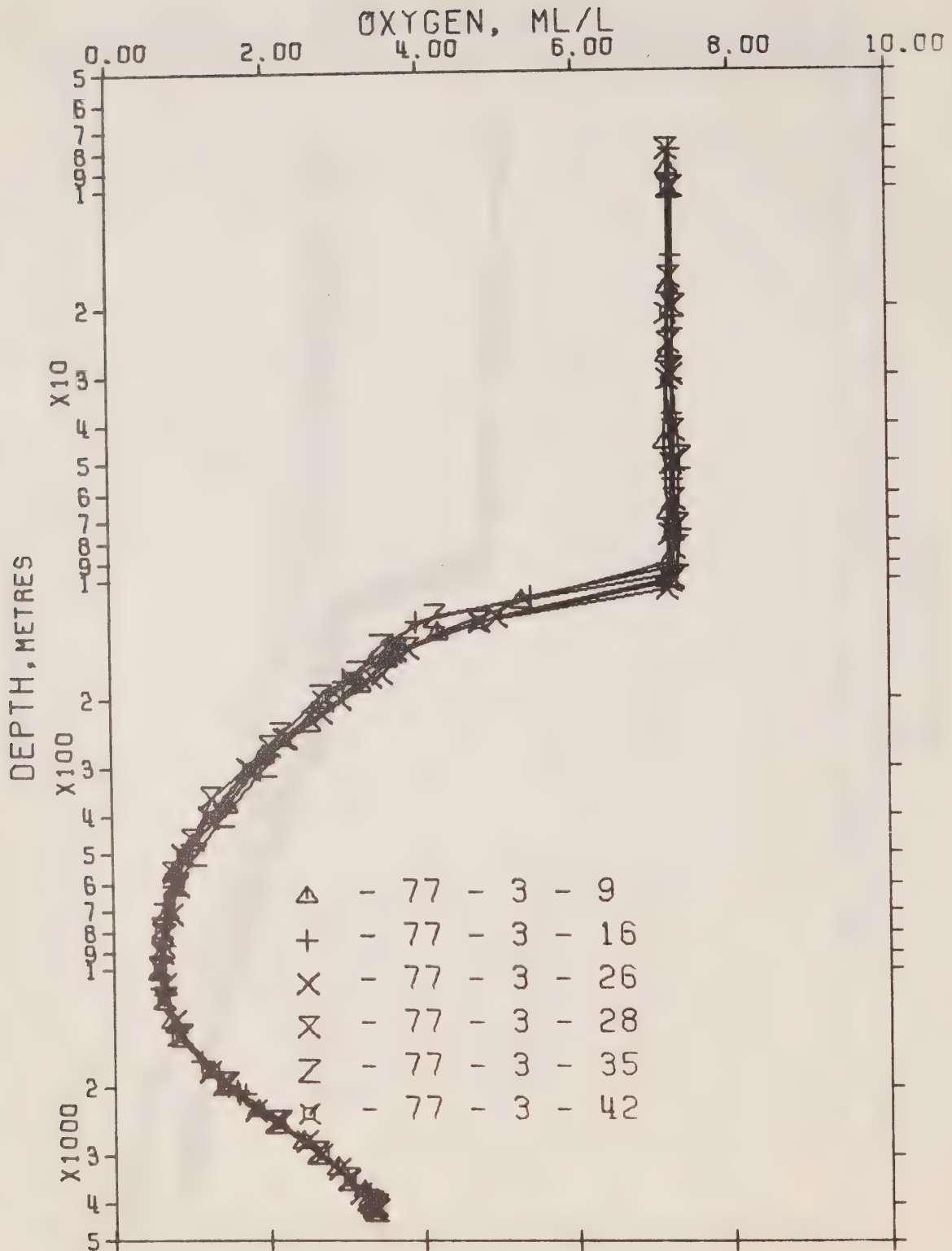
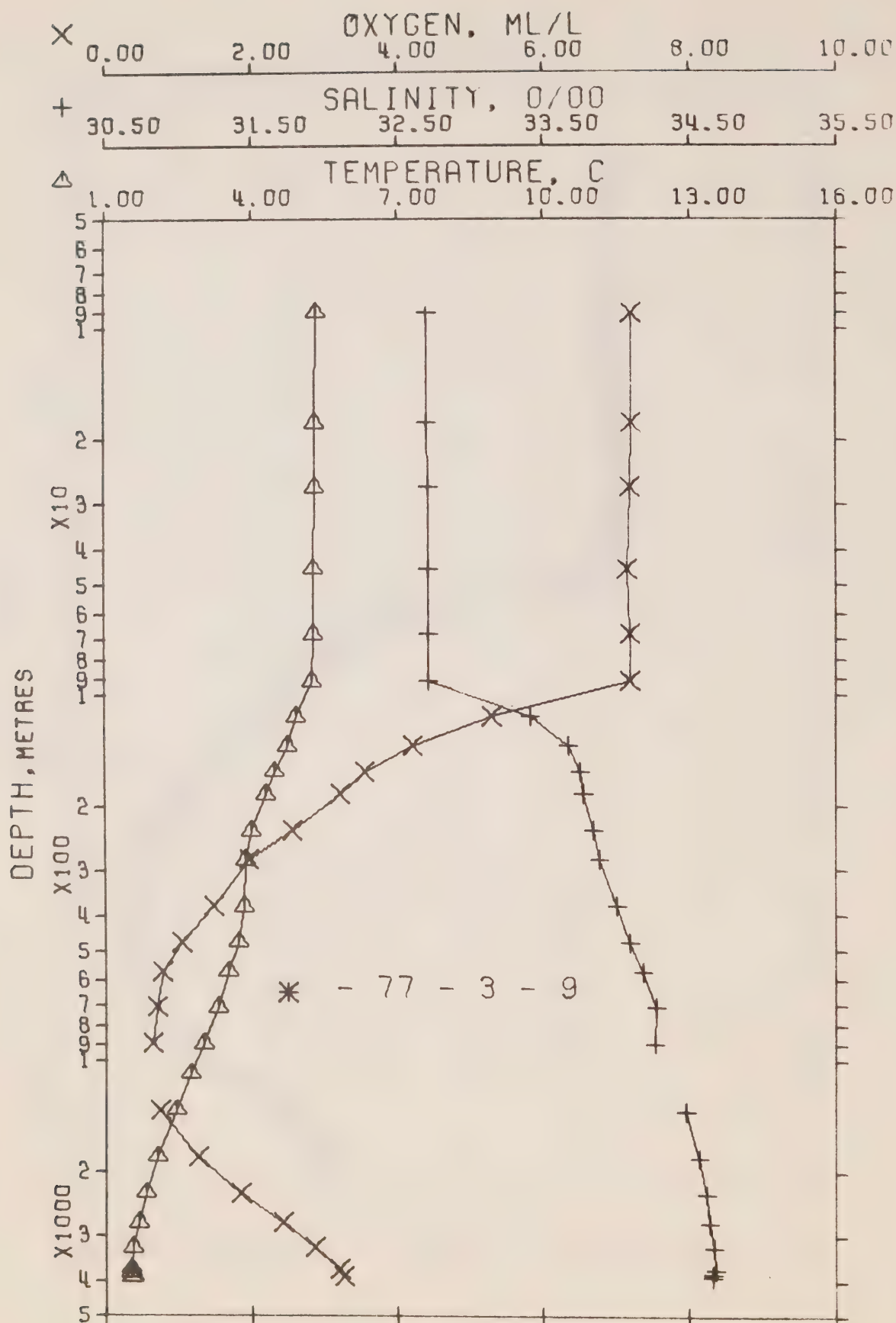


Figure 4. Composite plot of oxygen vs \log_{10} depth for Station P. P-77-3.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 9

DATE 29/ 3/77

GMT 17.5

POSITION 50-00 N, 145-00 W

STATION P

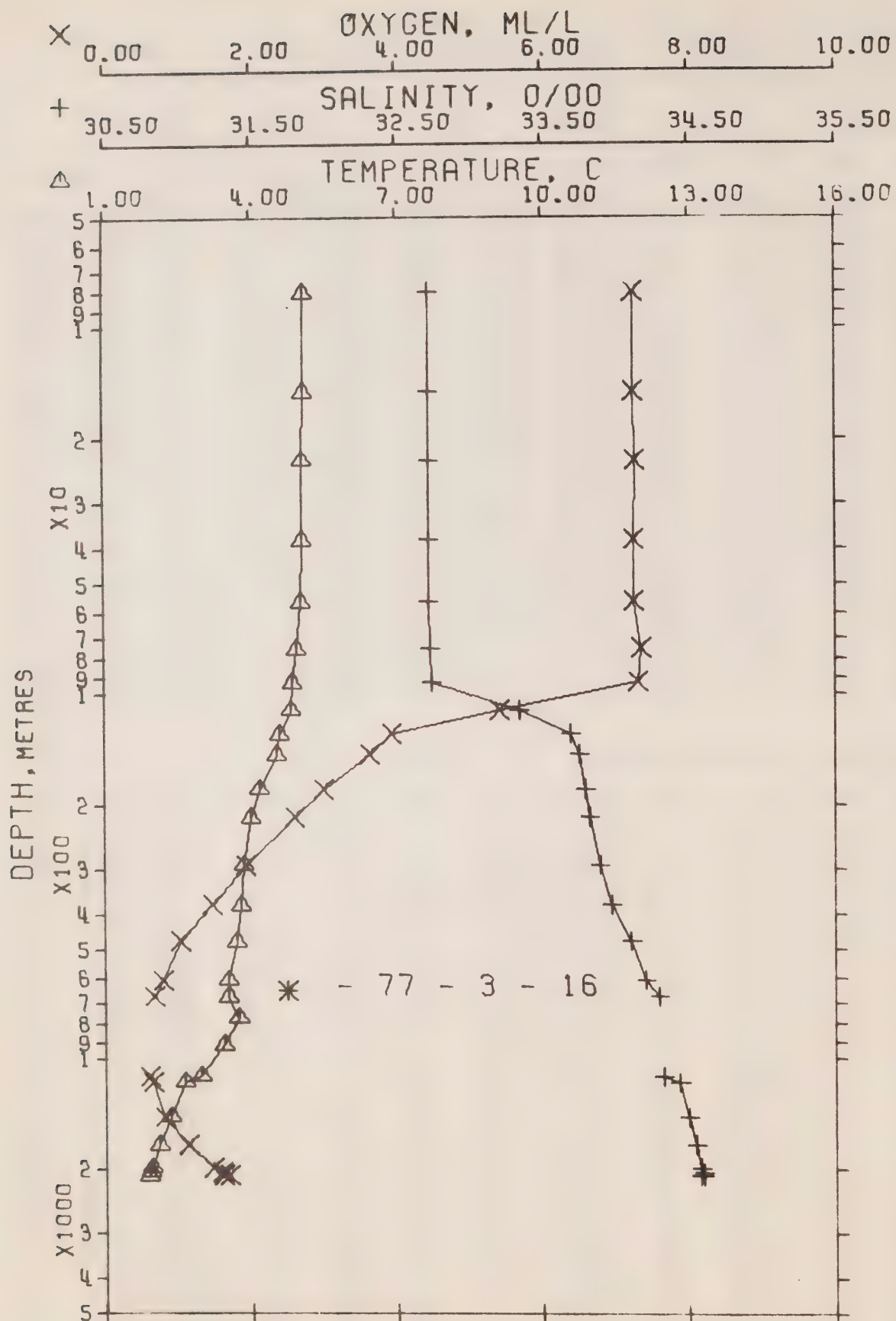
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.35	32.712	0	25.848	216.0	5.35	216.0	.00	.00	7.19	1469.
9	5.34	32.714	9	25.851	215.8	5.34	215.7	.20	.01	7.23	1470.
18	5.32	32.712	18	25.852	215.9	5.32	215.7	.39	.04	7.22	1470.
27	5.32	32.717	27	25.856	215.6	5.32	215.3	.59	.08	7.21	1470.
45	5.30	32.716	45	25.857	215.6	5.30	215.1	.98	.23	7.17	1470.
68	5.28	32.718	68	25.861	215.5	5.27	214.7	1.48	.51	7.20	1470.
92	5.27	32.718	91	25.862	215.6	5.26	214.6	1.98	.93	7.20	1471.
115	4.92	33.425	114	26.460	159.0	4.91	157.8	2.41	1.38	5.31	1470.
138	4.74	33.684	137	26.685	137.9	4.73	136.4	2.76	1.82	4.21	1470.
162	4.47	33.765	161	26.779	129.2	4.46	127.6	3.08	2.31	3.57	1470.
186	4.30	33.761	185	26.809	126.4	4.29	124.6	3.39	2.86	3.23	1470.
235	4.00	33.854	233	26.898	118.3	3.98	116.2	3.98	4.13	2.55	1469.
283	3.88	33.892	281	26.941	114.6	3.86	112.1	4.54	5.62	1.96	1469.
380	3.86	34.006	377	27.033	106.6	3.83	103.3	5.61	9.23	1.48	1471.
477	3.72	34.103	473	27.124	98.7	3.69	94.6	6.61	13.57	1.04	1472.
572	3.53	34.193	567	27.214	90.7	3.49	86.0	7.51	18.37	.79	1473.
716	3.30	34.276	710	27.302	83.1	3.25	77.6	8.76	26.59	.70	1475.
904	3.00	34.274	895	27.328	81.3	2.94	75.0	10.29	39.27	.63	1476.
1092	2.75	34.369 *	1081	27.427	72.7	2.68	65.6	11.75	54.01	.68 *	1479.
1376	2.44	34.485	1361	27.546	62.2	2.35	54.2	13.05	77.91	.75	1482.
1852	2.05	34.568	1830	27.644	53.8	1.92	44.7	16.41	123.13	1.27	1488.
2332	1.80	34.620	2302	27.705	48.7	1.64	38.7	18.86	175.34	1.83	1495.
2816	1.65	34.639	2776	27.731	47.0	1.44	36.0	21.17	236.01	2.43	1503.
3300	1.55	34.670	3250	27.764	44.7	1.30	32.6	23.39	305.07	2.86	1511.
3785	1.52	34.679	3723	27.773	44.9	1.22	31.4	25.55	383.12	3.20	1519.
3881	1.51	34.663 +	3817	27.761	46.2	1.20	32.5	25.99	400.28	3.23 *	1521.
3967	1.52	34.662 +	3901	27.759	46.6	1.20	32.6	26.39	416.27	3.26	1522.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.35	32.712	0	25.848	216.0	5.35	216.0	.00	.00	7.19	1469.
10	5.34	32.714	10	25.851	215.8	5.34	215.7	.22	.01	7.23	1470.
20	5.32	32.713	20	25.853	215.8	5.32	215.6	.43	.04	7.22	1470.
30	5.32	32.717	30	25.856	215.6	5.31	215.2	.65	.10	7.20	1470.
50	5.30	32.716	50	25.858	215.6	5.29	215.0	1.08	.27	7.18	1470.
75	5.28	32.718	75	25.861	215.5	5.27	214.7	1.62	.62	7.20	1470.
100	5.13	32.993	99	26.095	193.6	5.13	192.5	2.15	1.10	6.47	1471.
125	4.84	33.545	124	26.564	149.2	4.83	147.9	2.57	1.57	4.80	1470.
150	4.60	33.726	149	26.734	133.4	4.59	131.8	2.92	2.06	3.88	1470.
175	4.38	33.774	174	26.795	127.7	4.36	125.9	3.24	2.60	3.38	1470.
200	4.21	33.803	199	26.837	123.9	4.19	122.0	3.56	3.20	3.02	1469.
225	4.06	33.841	223	26.882	119.8	4.04	117.7	3.86	3.86	2.68	1469.
250	3.96	33.867	248	26.913	117.0	3.94	114.8	4.16	4.57	2.35	1469.
300	3.86	33.914	298	26.959	113.0	3.86	110.4	4.73	6.19	1.87	1470.
400	3.83	34.028	397	27.054	104.8	3.80	101.3	5.82	10.07	1.38	1471.
500	3.67	34.126	496	27.148	96.6	3.64	92.4	6.83	14.69	.97	1472.
600	3.48	34.211	595	27.233	89.1	3.44	84.2	7.76	19.88	.77	1473.
700	3.32	34.267	694	27.293	83.9	3.28	78.4	8.62	25.60	.71	1474.
800	3.16	34.275	793	27.315	82.3	3.10	76.3	9.45	31.91	.67	1475.
900	3.01	34.274	891	27.328	81.4	2.94	75.1	10.27	39.00	.63	1476.
1000	2.87	34.325	990	27.381	76.7	2.80	70.0	11.06	46.70	.66	1478.
1200	2.62	34.416	1188	27.475	68.4	2.54	61.0	12.51	62.91	.71	1480.
1500	2.33	34.509	1482	27.574	59.8	2.22	51.5	14.41	89.00	.90	1484.
2000	1.97	34.585	1975	27.664	52.1	1.83	42.7	17.19	138.50	1.46	1491.
2500	1.74	34.627	2466	27.715	48.1	1.57	37.7	19.67	195.33	2.05	1498.
3000	1.61	34.651	2956	27.744	46.1	1.39	34.6	22.03	261.42	2.60	1506.
3500	1.54	34.674	3446	27.768	44.8	1.27	32.1	24.29	336.06	3.01	1514.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 16

DATE 4/ 4/77 GMT 17.0

POSITION 50- .0 N, 145-

.0 W

STATION P

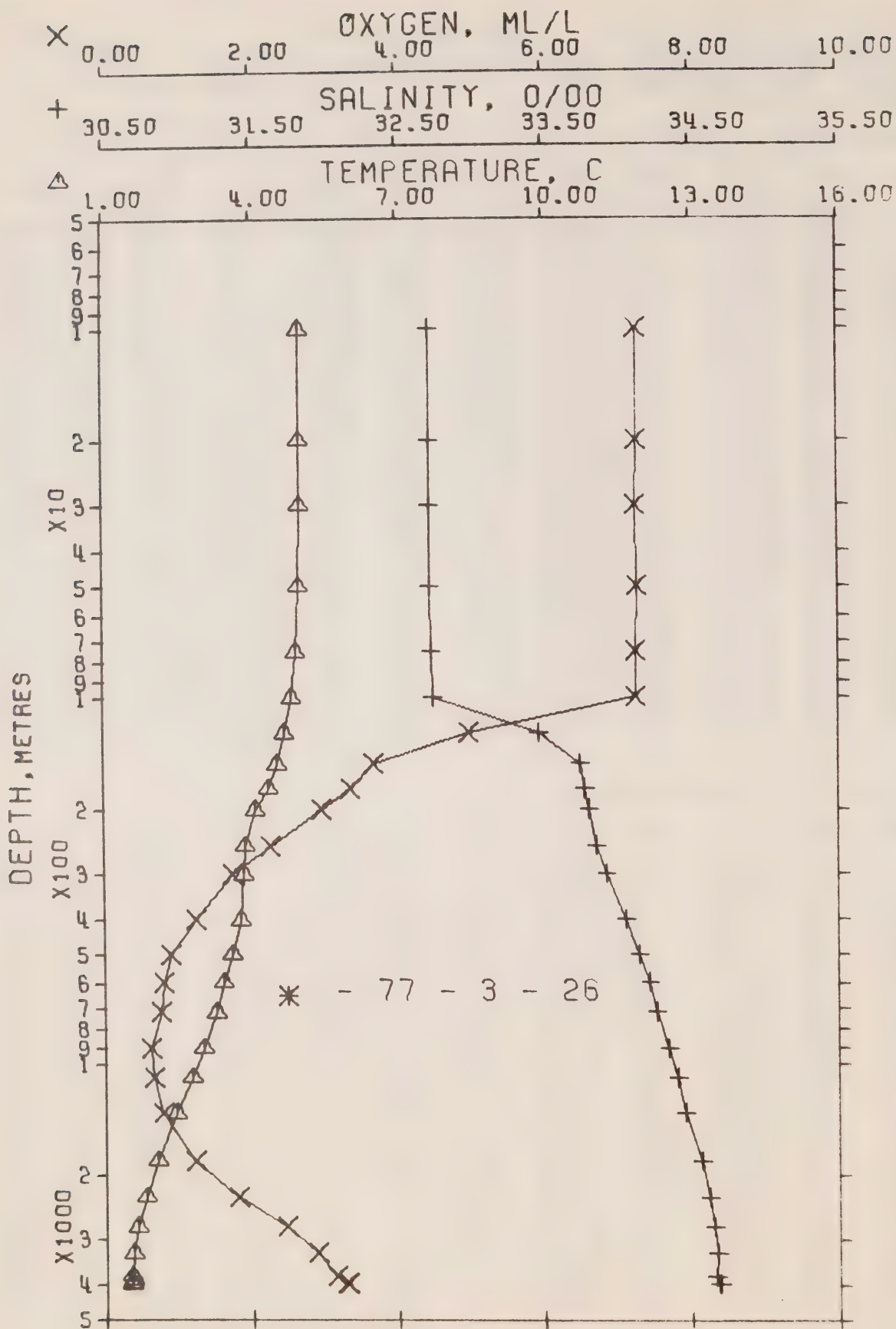
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.09	32.725	0	25.888	212.2	5.09	212.2	.00	.00	7.25	1468.
8	5.10	32.727	8	25.888	212.3	5.10	212.2	.17	.01	7.26	1469.
15	5.10	32.727	15	25.888	212.3	5.10	212.2	.32	.02	7.25	1469.
23	5.07	32.727	23	25.892	212.1	5.07	211.8	.49	.06	7.28	1469.
38	5.09	32.729	38	25.891	212.3	5.09	211.9	.81	.16	7.25	1469.
56	5.05	32.730	56	25.896	211.9	5.05	211.4	1.20	.34	7.27	1469.
75	4.96	32.739	75	25.914	210.5	4.95	209.7	1.60	.62	7.35	1469.
94	4.88	32.748	93	25.929	209.1	4.87	208.2	1.99	.95	7.32	1469.
111	4.83	33.353	110	26.413	163.4	4.82	162.3	2.31	1.28	5.42	1470.
129	4.61	33.704	128	26.715	134.9	4.60	133.6	2.58	1.01	3.95	1470.
147	4.53	33.765	146	26.772	129.7	4.52	128.2	2.81	1.94	3.64	1470.
182	4.18	33.800	181	26.837	123.7	4.17	122.0	3.26	2.69	3.00	1469.
219	4.00	33.832	217	26.881	119.8	3.98	117.8	3.70	3.59	2.59	1469.
295	3.86	33.901	293	26.950	113.8	3.84	111.2	4.60	5.93	1.92	1470.
380	3.79	33.984	377	27.023	107.6	3.76	104.3	5.53	9.16	1.45	1471.
478	3.69	34.107	474	27.130	98.1	3.66	94.0	6.54	13.54	1.03	1472.
610	3.51	34.207	605	27.227	89.8	3.47	84.7	7.78	20.42	.79	1474.
678	3.51	34.302	672	27.303	83.2	3.46	77.5	8.36	24.24	.65	1475.
777	3.73	34.309*	770	27.287	85.8	3.67	78.9	9.20	30.47	.64*	1478.
920	3.43	34.318*	911	27.323	82.9	3.36	75.4	10.40	40.87	.62*	1479.
1125	2.94	34.329	1114	27.378	77.9	2.86	70.2	12.11	58.05	.60	1480.
1164	2.61	34.436	1152	27.492	66.6	2.53	59.4	12.38	61.88	.65	1479.
1456	2.33	34.503	1440	27.569	60.1	2.23	52.0	14.22	86.46	.80	1483.
1741	2.08	34.551	1721	27.628	54.9	1.96	46.3	15.86	113.16	1.12	1487.
2013	1.94	34.582	1988	27.664	52.1	1.80	42.8	17.31	140.86	1.46	1491.
2065	1.89	34.599	2039	27.681	50.4	1.75	41.1	17.58	146.39	1.58	1491.
2111	1.86	34.600	2085	27.684	50.2	1.71	40.8	17.81	151.23	1.59	1492.
2116	1.86	34.579+	2090	27.667	51.7	1.71	42.4	17.83	151.79	1.68	1492.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.09	32.725	0	25.888	212.2	5.09	212.2	.00	.00	7.25	1468.
10	5.10	32.727	10	25.888	212.3	5.10	212.2	.21	.01	7.26	1469.
20	5.08	32.727	20	25.891	212.2	5.08	212.0	.42	.04	7.27	1469.
30	5.08	32.728	30	25.891	212.2	5.08	211.9	.64	.10	7.27	1469.
50	5.06	32.730	50	25.895	212.0	5.06	211.5	1.06	.27	7.26	1469.
75	4.96	32.739	75	25.914	210.5	4.95	209.7	1.60	.62	7.35	1469.
100	4.86	32.985	99	26.119	191.2	4.85	190.2	2.12	1.08	6.58	1469.
125	4.65	33.633	124	26.654	140.7	4.65	139.4	2.52	1.54	4.25	1470.
150	4.50	33.768	149	26.778	129.1	4.49	127.6	2.85	2.00	3.58	1470.
175	4.25	33.793	174	26.825	124.8	4.23	123.2	3.17	2.53	3.12	1469.
200	4.09	33.816	199	26.859	121.7	4.07	119.9	3.48	3.11	2.79	1469.
225	3.99	33.839	223	26.887	119.2	3.97	117.2	3.78	3.77	2.53	1469.
250	3.94	33.863	248	26.912	117.1	3.92	114.9	4.07	4.48	2.29	1469.
300	3.86	33.906	298	26.954	113.4	3.83	110.8	4.65	6.10	1.89	1470.
400	3.77	34.011	397	27.047	105.4	3.74	102.0	5.75	10.01	1.36	1471.
500	3.66	34.125	496	27.148	96.5	3.62	92.3	6.75	14.61	.98	1472.
600	3.52	34.200	595	27.221	90.3	3.48	85.4	7.69	19.85	.80	1474.
700	3.56	34.304	694	27.299	83.8	3.51	77.9	8.54	25.53	.65	1476.
800	3.68	34.311	793	27.293	85.3	3.62	78.3	9.40	32.05	.63	1478.
900	3.47	34.317	891	27.319	83.3	3.40	75.9	10.24	39.35	.62	1478.
1000	3.23	34.323	990	27.346	80.8	3.16	73.2	11.06	47.30	.61	1479.
1200	2.57	34.445	1188	27.503	65.7	2.49	58.4	12.62	64.74	.67	1480.
1500	2.29	34.511	1483	27.579	59.2	2.19	51.0	14.49	90.43	.85	1484.
2000	1.95	34.581	1975	27.662	52.2	1.81	42.9	17.25	139.52	1.45	1491.



OFFSHORE OCEANOGRAPHY GROUP
REFERENCE NO. 77- 3- 26
POSITION 50- .0 N, 145- .0 W
HYDROGRAPHIC CAST DATA

DATE 12/ 4/77 GMT 20.8

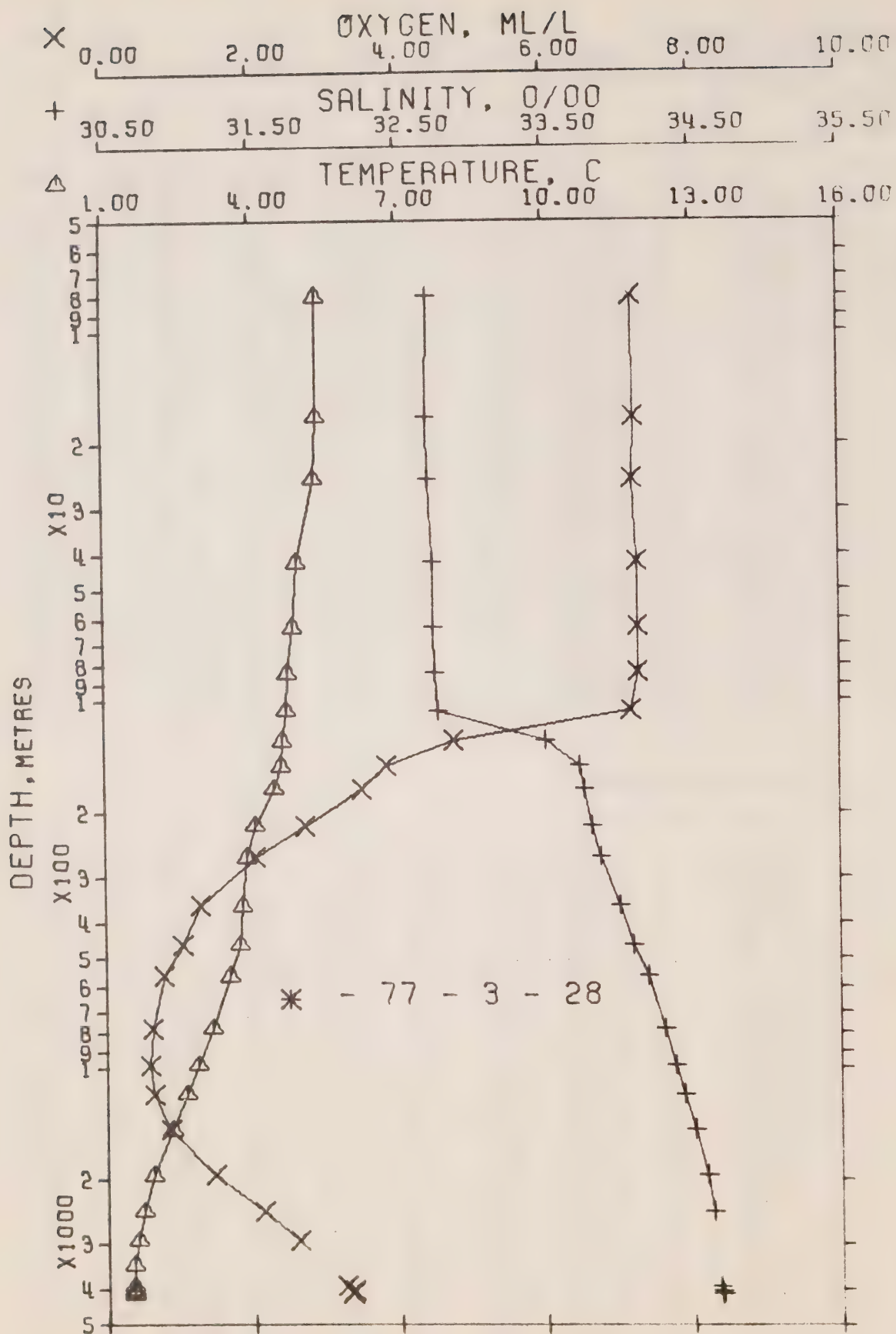
STATION P

OBSERVED DATA

PRESS	TEMP	SAL	LEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.04	32.734	0	25.901	211.0	5.04	211.0	.00	.00	7.25	1468.
10	5.03	32.733	10	25.901	211.1	5.03	211.0	.21	.01	7.28	1468.
20	5.03	32.732	20	25.900	211.2	5.03	211.0	.42	.04	7.28	1468.
30	5.03	32.732	30	25.900	211.3	5.03	211.0	.64	.10	7.26	1469.
50	4.98	32.733	50	25.907	210.9	4.98	210.4	1.06	.27	7.27	1469.
75	4.92	32.741	75	25.920	209.9	4.91	209.2	1.59	.61	7.27	1469.
101	4.83	32.747	100	25.934	208.7	4.82	207.8	2.12	1.09	7.26	1469.
126	4.69	33.466	125	26.518	153.6	4.68	152.3	2.58	1.61	4.98	1470.
152	4.55	33.755	151	26.762	130.7	4.54	129.1	2.95	2.13	3.68	1470.
177	4.35	33.784	176	26.806	126.6	4.34	124.9	3.27	2.67	3.36	1470.
202	4.10	33.808	201	26.852	122.5	4.09	120.6	3.58	3.28	2.96	1469.
254	3.89	33.860	252	26.914	116.9	3.87	114.6	4.20	4.71	2.26	1469.
304	3.84	33.929	302	26.974	111.6	3.82	108.9	4.77	6.35	1.74	1470.
405	3.79	34.056	402	27.060	102.4	3.76	98.8	5.85	10.24	1.23	1471.
503	3.62	34.148	499	27.170	94.5	3.58	90.3	6.61	14.70	.90	1472.
599	3.44	34.225	594	27.248	87.6	3.40	82.8	7.69	19.60	.80	1473.
724	3.29	34.271	717	27.299	83.5	3.24	77.9	8.75	26.76	.75	1475.
907	3.01	34.350	898	27.388	75.8	2.95	69.4	10.20	38.84	.63	1477.
1091	2.76	34.409	1080	27.457	69.8	2.69	62.7	11.54	52.46	.66	1479.
1371	2.45	34.463	1356	27.527	63.9	2.36	56.0	13.41	75.88	.78	1482.
1846	2.06	34.566	1824	27.641	54.0	1.93	45.0	16.21	121.56	1.22	1488.
2329	1.81	34.619	2299	27.703	48.9	1.65	38.9	18.69	174.27	1.80	1495.
2824	1.64	34.654	2784	27.744	45.8	1.43	34.8	21.03	235.59	2.46	1503.
3327	1.54	34.670	3276	27.764	44.7	1.29	32.6	23.30	306.69	2.87	1511.
3839	1.51	34.665	3776	27.762	45.9	1.20	32.4	25.62	391.57	3.14	1520.
3942	1.53	34.675 *	3877	27.769	45.8	1.21	31.7	26.10	410.43	3.22 *	1522.
4036	1.52	34.683	3968	27.776	45.3	1.19	31.0	26.52	427.75	3.29	1523.
4046	1.51	34.688	3978	27.781	44.8	1.18	30.5	26.57	429.66	3.27	1524.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	LEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.04	32.734	0	25.901	211.0	5.04	211.0	.00	.00	7.25	1468.
10	5.03	32.733	10	25.901	211.1	5.03	211.0	.21	.01	7.28	1468.
20	5.03	32.732	20	25.900	211.2	5.03	211.0	.42	.04	7.26	1468.
30	5.03	32.732	30	25.900	211.3	5.03	211.0	.64	.10	7.26	1469.
50	4.98	32.733	50	25.907	210.9	4.98	210.4	1.06	.27	7.27	1469.
75	4.92	32.741	75	25.920	209.9	4.91	209.2	1.59	.61	7.27	1469.
100	4.83	32.747	99	25.934	208.7	4.82	207.8	2.11	1.07	7.26	1469.
125	4.69	33.444	124	26.500	155.3	4.68	154.0	2.56	1.59	5.05	1470.
150	4.56	33.734	149	26.744	132.3	4.55	130.8	2.92	2.09	3.77	1470.
175	4.37	33.782	174	26.803	127.0	4.35	125.3	3.24	2.62	3.38	1470.
200	4.12	33.806	199	26.847	122.9	4.11	121.0	3.55	3.22	3.00	1469.
225	4.00	33.832	224	26.881	119.8	3.99	117.8	3.65	3.87	2.63	1469.
250	3.90	33.856	248	26.910	117.2	3.89	115.0	4.15	4.59	2.31	1469.
300	3.84	33.924	298	26.969	112.0	3.82	109.4	4.72	6.20	1.78	1470.
400	3.79	34.050	397	27.075	102.8	3.76	99.3	5.80	10.02	1.25	1471.
500	3.63	34.145	496	27.167	94.7	3.59	90.5	6.78	14.55	.91	1472.
600	3.44	34.225	595	27.249	87.6	3.40	82.7	7.69	19.64	.80	1473.
700	3.32	34.263	694	27.290	84.2	3.27	78.7	8.55	25.33	.76	1474.
800	3.17	34.306	793	27.339	80.0	3.11	74.1	9.37	31.62	.70	1475.
900	3.02	34.347	891	27.385	76.1	2.96	69.6	10.15	38.37	.63	1477.
1000	2.88	34.381	990	27.425	72.6	2.81	65.8	10.90	45.57	.65	1478.
1200	2.63	34.432	1199	27.487	67.4	2.55	59.9	12.29	61.20	.71	1480.
1500	2.33	34.494	1484	27.562	60.9	2.23	52.6	14.22	87.69	.92	1484.
2000	1.97	34.584	1975	27.663	52.3	1.84	42.9	17.03	137.60	1.42	1491.
2500	1.75	34.632	2466	27.718	47.8	1.57	37.4	19.52	194.58	2.04	1498.
3000	1.60	34.660	2956	27.752	45.4	1.38	34.0	21.83	259.40	2.61	1506.
3500	1.53	34.668	3445	27.764	45.1	1.26	32.5	24.07	333.74	2.97	1514.
4000	1.52	34.680	3932	27.773	45.5	1.20	31.2	26.36	421.07	3.27	1523.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 28

DATE 22/ 4/77

GMT 17.8

POSITION 50- .0 N, 145-

.0 W

STATION P

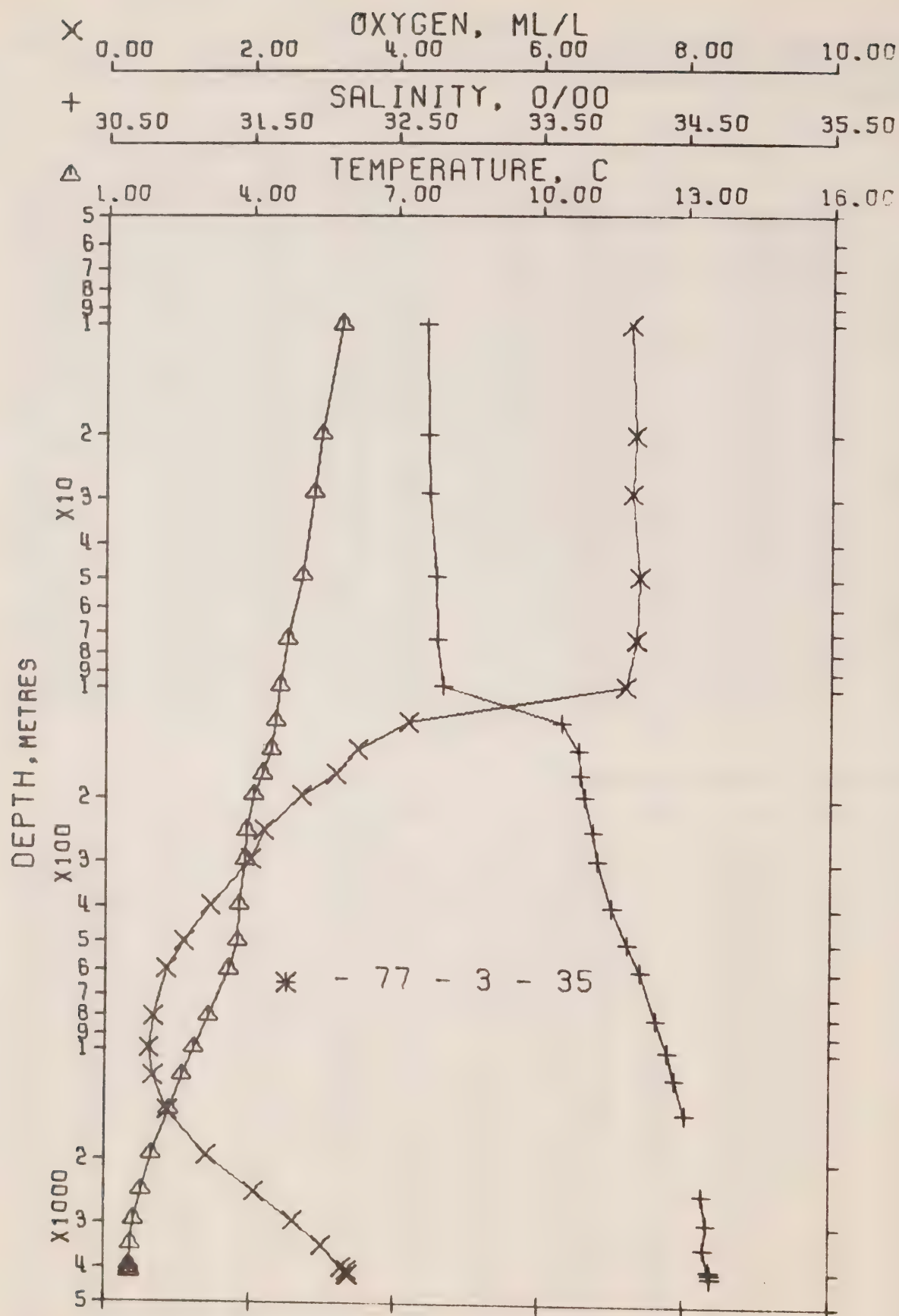
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.45	32.718	0	25.841	216.7	5.45	216.7	.00	.00	7.17	1470.
8	5.38	32.724	8	25.854	215.5	5.38	215.4	.17	.01	7.22	1470.
17	5.38	32.715	17	25.847	216.3	5.38	216.1	.37	.03	7.24	1470.
25	5.31	32.716	25	25.856	215.5	5.31	215.2	.54	.07	7.21	1470.
42	4.97	32.749	42	25.920	209.5	4.97	209.1	.91	.19	7.27	1469.
63	4.87	32.753	63	25.934	208.4	4.87	207.8	1.35	.43	7.28	1469.
85	4.74	32.763	84	25.957	206.4	4.73	205.6	1.79	.76	7.27	1468.
107	4.72	32.776	106	25.969	205.4	4.71	204.4	2.24	1.21	7.17	1469.
129	4.63	33.513	128	26.562	149.4	4.62	148.1	2.64	1.68	4.75	1470.
151	4.59	33.743	150	26.748	132.0	4.58	130.4	2.95	2.12	3.84	1470.
174	4.44	33.768	173	26.784	128.8	4.43	127.0	3.25	2.62	3.49	1470.
220	4.06	33.816	218	26.862	121.6	4.04	119.6	3.81	3.76	2.72	1469.
267	3.89	33.864	265	26.933	115.2	3.87	112.8	4.37	5.14	2.04	1469.
363	3.78	34.010	360	27.044	105.4	3.75	102.2	5.43	8.52	1.29	1471.
463	3.72	34.105	459	27.126	98.4	3.69	94.5	6.45	12.80	1.03	1472.
565	3.51	34.200	560	27.222	89.9	3.47	85.3	7.41	17.82	.79	1473.
783	3.16	34.310	776	27.342	79.6	3.11	73.7	9.25	30.45	.62	1475.
985	2.87	34.383	975	27.427	72.3	2.80	65.6	10.78	44.18	.58	1477.
1186	2.62	34.437	1174	27.492	66.8	2.54	59.4	12.18	59.67	.64	1480.
1487	2.31	34.507	1471	27.574	59.7	2.21	51.5	14.07	85.51	.86	1483.
1987	1.93	34.568	1963	27.669	51.4	1.79	42.3	16.85	134.49	1.46	1490.
2487	1.72	34.632	2454	27.721	47.4	1.54	37.2	19.30	190.37	2.12	1498.
2988	1.59	34.647*	2945	27.742	46.1	1.37	34.9	21.64	255.58	2.60	1506.
3491	1.52	34.659*	3436	27.757	45.6	1.25	33.1	23.93	331.43	2.94*	1514.
3998	1.50	34.670	3931	27.767	45.8	1.18	31.8	26.27	420.45	3.24	1523.
4099	1.52	34.683	4030	27.776	45.5	1.19	30.9	26.73	439.57	3.34	1524.
4191	1.52	34.685	4119	27.778	45.6	1.17	30.7	27.15	457.18	3.32	1526.
4201	1.52	34.687	4129	27.779	45.4	1.17	30.5	27.19	459.18	3.32	1526.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.45	32.718	0	25.841	216.7	5.45	216.7	.00	.00	7.17	1470.
10	5.38	32.721	10	25.852	215.7	5.38	215.6	.22	.01	7.23	1470.
20	5.35	32.715	20	25.851	216.0	5.35	215.8	.43	.04	7.23	1470.
30	5.20	32.727	30	25.878	213.5	5.19	213.2	.65	.10	7.23	1469.
50	4.93	32.751	50	25.926	209.0	4.92	208.6	1.07	.27	7.28	1469.
75	4.79	32.759	75	25.947	207.2	4.79	206.5	1.59	.60	7.28	1468.
100	4.73	32.772	99	25.965	205.7	4.72	204.8	2.10	1.06	7.20	1469.
125	4.64	33.394	124	26.466	158.5	4.64	157.3	2.58	1.60	5.15	1469.
150	4.59	33.733	149	26.740	132.8	4.58	131.2	2.93	2.10	3.98	1470.
175	4.43	33.769	174	26.786	128.6	4.42	126.9	3.26	2.63	3.48	1470.
200	4.21	33.797	198	26.831	124.5	4.20	122.6	3.57	3.24	3.03	1469.
225	4.04	33.824	223	26.871	120.8	4.02	118.8	3.88	3.90	2.64	1469.
250	3.95	33.861	248	26.909	117.3	3.93	115.1	4.18	4.62	2.27	1469.
300	3.85	33.932	298	26.975	111.4	3.83	108.8	4.75	6.22	1.76	1470.
400	3.76	34.048	397	27.077	102.6	3.73	99.1	5.82	10.02	1.19	1471.
500	3.64	34.142	496	27.163	95.1	3.60	90.9	6.81	14.57	.94	1472.
600	3.45	34.220	595	27.244	88.0	3.40	83.2	7.72	19.68	.76	1473.
700	3.28	34.272	694	27.301	83.1	3.23	77.7	8.57	25.34	.67	1474.
800	3.13	34.317	793	27.350	78.9	3.08	73.0	9.38	31.53	.61	1475.
900	2.98	34.354	891	27.394	75.2	2.92	68.8	10.15	38.20	.59	1476.
1000	2.85	34.388	990	27.432	71.9	2.78	65.1	10.89	45.31	.59	1478.
1200	2.60	34.441	1188	27.496	66.4	2.52	59.0	12.27	60.80	.65	1480.
1500	2.30	34.509	1484	27.577	59.4	2.20	51.2	14.15	86.66	.88	1484.
2000	1.92	34.589	1975	27.671	51.3	1.79	42.1	16.91	135.82	1.48	1490.
2500	1.72	34.632	2466	27.721	47.3	1.54	37.1	19.36	191.91	2.13	1498.
3000	1.59	34.647	2957	27.742	46.1	1.37	34.8	21.69	257.22	2.61	1506.
3500	1.52	34.659	3445	27.757	45.6	1.25	33.1	23.98	332.97	2.95	1514.
4000	1.50	34.670	3933	27.767	45.8	1.18	31.8	26.28	420.85	3.24	1523.
4100	1.52	34.683	4031	27.776	45.5	1.19	30.9	26.73	439.66	3.34	1524.
4200	1.52	34.687	4128	27.779	45.5	1.17	30.5	27.19	458.96	3.32	1526.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 35

DATE 28/ 4/77

GMT 17.8

POSITION 50- .0 N, 145-

.0 W

STATION P

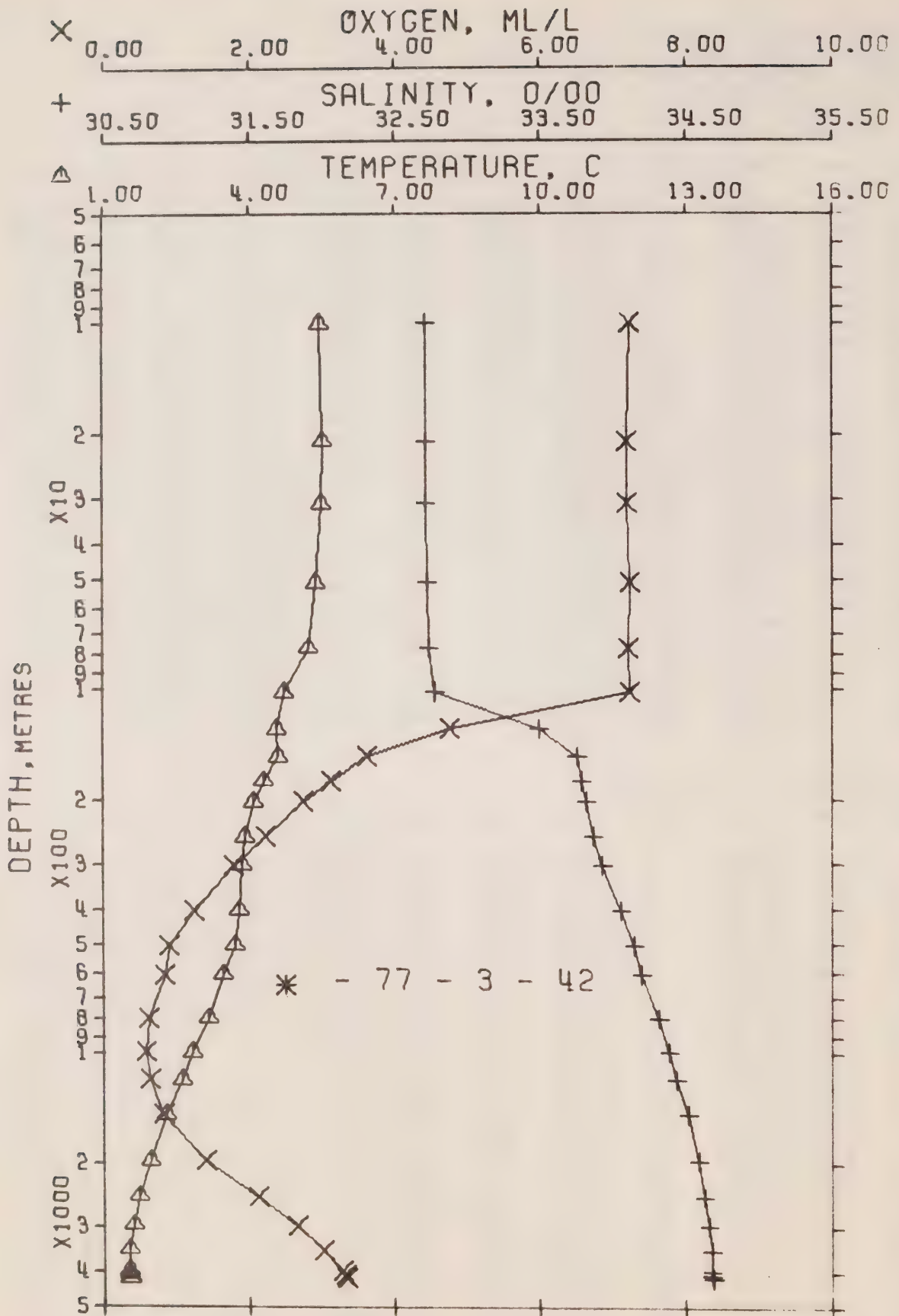
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.80	32.716	0	25.798	220.7	5.80	220.7	.00	.00	7.36	1471.
10	5.87	32.714	10	25.788	221.8	5.87	221.7	.22	.01	7.24	1472.
20	5.44	32.724	20	25.847	216.3	5.44	216.1	.44	.05	7.29	1470.
29	5.29	32.731	29	25.870	214.2	5.29	213.9	.64	.09	7.26	1470.
49	5.04	32.776	49	25.934	203.3	5.04	207.8	1.06	.26	7.36	1469.
73	4.76	32.789	73	25.975	204.6	4.75	203.9	1.56	.58	7.31	1468.
99	4.59	32.826	98	26.022	200.3	4.58	199.4	2.08	1.03	7.18	1468.
124	4.50	33.653	123	26.687	137.5	4.49	136.3	2.50	1.51	4.17	1469.
148	4.42	33.769	147	26.787	128.2	4.41	126.8	2.82	1.95	3.48	1469.
173	4.24	33.785	172	26.819	125.4	4.23	123.7	3.14	2.47	3.17	1469.
198	4.05	33.814	197	26.861	121.5	4.04	119.7	3.45	3.06	2.70	1469.
249	3.91	33.870	247	26.920	116.3	3.89	114.1	4.05	4.42	2.18	1469.
299	3.88	33.896	297	26.944	114.4	3.86	111.8	4.63	6.05	2.00	1470.
400	3.77	33.996	397	27.034	106.6	3.74	103.2	5.75	10.02	1.44	1471.
502	3.73	34.113	498	27.131	98.3	3.69	93.9	6.79	14.62	1.08	1473.
603	3.54	34.203	598	27.221	90.3	3.50	85.3	7.74	20.19	.84	1474.
811	3.14	34.313	804	27.347	79.3	3.08	73.3	9.50	32.84	.65	1476.
998	2.83	34.392	988	27.438	71.3	2.76	64.6	10.90	45.72	.59	1477.
1168	2.60	34.444	1176	27.499	66.1	2.52	58.7	12.21	60.27	.66	1480.
1479	2.32	34.508	1463	27.574	59.7	2.22	51.5	14.03	85.03	.87	1483.
1977	1.97	34.577 *	1953	27.658	52.7	1.83	43.4	16.83	134.23	1.40	1490.
2486	1.75	34.632	2453	27.718	47.8	1.57	37.4	19.37	191.94	2.07	1498.
3002	1.61	34.661	2958	27.752	45.4	1.39	33.9	21.77	258.98	2.60	1506.
3518	1.53	34.644 +	3463	27.744	46.9	1.26	34.3	24.13	337.59	3.01	1514.
4029	1.52	34.682	3961	27.775	45.4	1.19	31.0	26.50	428.63	3.28	1523.
4130	1.52	34.687	4060	27.779	45.3	1.18	30.6	26.96	447.78	3.37	1525.
4221	1.52	34.690	4148	27.782	45.3	1.17	30.3	27.37	465.18	3.36	1527.
4231	1.53	34.689	4158	27.780	45.5	1.18	30.4	27.41	467.19	3.38	1527.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.80	32.716	0	25.798	220.7	5.80	220.7	.00	.00	7.36	1471.
10	5.87	32.714	10	25.788	221.8	5.87	221.7	.22	.01	7.24	1472.
20	5.44	32.724	20	25.847	216.3	5.44	216.1	.44	.05	7.29	1470.
30	5.28	32.733	30	25.873	213.9	5.27	213.6	.66	.10	7.26	1470.
50	5.03	32.776	50	25.935	208.2	5.03	207.7	1.08	.27	7.35	1469.
75	4.75	32.792	75	25.978	204.3	4.74	203.6	1.59	.60	7.31	1468.
100	4.58	32.875	99	26.062	196.5	4.58	195.6	2.10	1.05	7.00	1468.
125	4.50	33.659	124	26.692	137.1	4.49	135.8	2.52	1.53	4.14	1469.
150	4.40	33.770	149	26.790	128.0	4.39	126.5	2.84	1.99	3.46	1469.
175	4.23	33.787	174	26.822	125.1	4.21	123.4	3.16	2.51	3.14	1469.
200	4.05	33.816	199	26.863	121.3	4.03	119.5	3.47	3.10	2.68	1469.
225	3.97	33.845	224	26.894	118.6	3.96	116.6	3.77	3.75	2.41	1469.
250	3.91	33.871	248	26.921	116.2	3.89	114.0	4.06	4.46	2.18	1469.
300	3.88	33.897	298	26.945	114.4	3.86	111.7	4.64	6.08	2.00	1470.
400	3.77	33.996	397	27.034	106.6	3.74	103.2	5.75	10.02	1.44	1471.
500	3.73	34.111	496	27.129	98.4	3.70	94.1	6.77	14.71	1.08	1473.
600	3.55	34.200	595	27.219	90.5	3.50	85.6	7.71	20.01	.85	1474.
700	3.34	34.258	694	27.284	84.8	3.29	79.3	8.59	25.80	.75	1475.
800	3.16	34.308	793	27.341	79.9	3.10	73.9	9.41	32.09	.66	1475.
900	2.98	34.353	891	27.392	75.3	2.92	69.0	10.19	38.81	.62	1476.
1000	2.83	34.393	990	27.439	71.3	2.76	64.5	10.92	45.89	.59	1477.
1200	2.59	34.447	1188	27.503	65.8	2.51	58.4	12.29	61.22	.67	1480.
1500	2.30	34.511	1484	27.578	59.4	2.20	51.1	14.15	86.91	.89	1484.
2000	1.96	34.580	1975	27.661	52.4	1.82	43.1	16.95	136.68	1.43	1491.
2500	1.75	34.633	2466	27.719	47.7	1.57	37.3	19.43	193.61	2.09	1498.
3000	1.61	34.661	2957	27.752	45.4	1.39	33.9	21.76	258.76	2.59	1506.
3500	1.53	34.645	3445	27.744	46.8	1.26	34.3	24.04	334.55	2.99	1514.
4000	1.52	34.680	3933	27.774	45.4	1.20	31.2	26.37	423.31	3.26	1523.
4100	1.52	34.686	4031	27.778	45.3	1.19	30.7	26.82	442.03	3.34	1524.
4200	1.52	34.689	4128	27.781	45.3	1.17	30.4	27.27	461.18	3.36	1526.



OFFSHORE OCEANOGRAPHY GROUP
 REFERENCE NO. 77- 3- 42
 POSITION 50- .0 N, 145-
 HYDROGRAPHIC CAST DATA

DATE 5/ 5/77 GMT 17.7
 .0 W

STATION P

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.54	32.716	0	25.829	217.8	5.54	217.8	.00	.00	7.20	1470.
10	5.47	32.716	10	25.837	217.1	5.47	217.0	.22	.01	7.24	1470.
21	5.52	32.718	21	25.833	217.7	5.52	217.4	.46	.05	7.21	1470.
31	5.49	32.723	31	25.841	217.0	5.49	216.7	.68	.11	7.20	1471.
51	5.38	32.727	51	25.857	215.7	5.38	215.2	1.11	.29	7.24	1470.
78	5.24	32.744	77	25.886	213.2	5.23	212.3	1.68	.66	7.23	1470.
103	4.71	32.779	102	25.972	205.1	4.70	204.1	2.20	1.14	7.24	1469.
129	4.57	33.497	128	26.556	150.0	4.56	148.7	2.67	1.69	4.76	1469.
154	4.59	33.762	153	26.763	130.6	4.58	129.0	3.02	2.20	3.63	1470.
179	4.31	33.794	178	26.819	125.5	4.30	123.8	3.34	2.74	3.12	1469.
204	4.08	33.817	203	26.861	121.6	4.07	119.7	3.65	3.35	2.74	1469.
256	3.92	33.872	254	26.921	116.3	3.90	114.0	4.26	4.78	2.22	1469.
306	3.85	33.931	304	26.975	111.6	3.83	108.9	4.84	6.43	1.78	1470.
407	3.80	34.060	404	27.082	102.2	3.77	98.6	5.91	10.34	1.25	1471.
507	3.69	34.148	503	27.163	95.3	3.65	90.9	6.90	14.93	.91	1473.
609	3.45	34.205	604	27.232	89.3	3.41	84.3	7.84	20.28	.83	1473.
806	3.15	34.317	799	27.349	79.1	3.09	73.1	9.50	32.20	.61	1476.
999	2.82	34.391	989	27.438	71.3	2.75	64.6	10.94	45.45	.59	1477.
1193	2.62	34.443	1181	27.497	66.4	2.54	58.9	12.28	60.40	.63	1480.
1491	2.30	34.516	1475	27.582	58.9	2.20	50.7	14.13	85.79	.82	1483.
1997	1.95	34.589	1973	27.668	51.6	1.81	42.3	16.93	135.42	1.40	1490.
2512	1.72	34.635	2478	27.723	47.2	1.54	36.9	19.47	193.72	2.11	1498.
3027	1.59	34.663	2983	27.755	45.1	1.37	33.6	21.83	260.55	2.66	1506.
3541	1.52	34.678	3485	27.772	44.4	1.25	31.7	24.12	337.20	3.01	1515.
4044	1.51	34.677	3976	27.772	45.6	1.18	31.3	26.38	424.44	3.28	1523.
4143	1.52	34.678	4072	27.772	45.9	1.18	31.3	26.83	443.25	3.33	1525.
4232	1.52	34.690*	4159	27.782	45.3	1.17	30.3	27.24	460.65	3.34*	1527.
4241	1.53	34.691	4168	27.782	45.4	1.18	30.3	27.28	462.46	3.34	1527.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.54	32.716	0	25.829	217.8	5.54	217.8	.00	.00	7.20	1470.
10	5.47	32.716	10	25.837	217.1	5.47	217.0	.22	.01	7.24	1470.
20	5.52	32.718	20	25.833	217.6	5.51	217.4	.43	.04	7.21	1470.
30	5.49	32.722	30	25.840	217.1	5.49	216.8	.65	.10	7.21	1470.
50	5.39	32.727	50	25.856	215.8	5.38	215.2	1.09	.28	7.24	1470.
75	5.25	32.743	75	25.884	213.4	5.25	212.6	1.62	.62	7.23	1470.
100	4.76	32.776	99	25.964	205.8	4.75	204.9	2.15	1.09	7.23	1469.
125	4.59	33.401	124	26.477	157.4	4.58	156.2	2.61	1.61	5.09	1469.
150	4.59	33.722	149	26.732	133.5	4.58	132.0	2.97	2.11	3.80	1470.
175	4.35	33.789	174	26.810	126.3	4.34	124.6	3.29	2.64	3.20	1470.
200	4.12	33.813	199	26.854	122.3	4.10	120.4	3.60	3.24	2.81	1469.
225	4.01	33.840	224	26.886	119.3	4.00	117.3	3.90	3.89	2.52	1469.
250	3.94	33.866	248	26.914	116.8	3.92	114.6	4.19	4.61	2.28	1469.
300	3.86	33.924	298	26.968	112.1	3.84	109.5	4.77	6.21	1.83	1470.
400	3.80	34.052	397	27.075	102.8	3.77	99.3	5.84	10.04	1.28	1471.
500	3.70	34.142	496	27.158	95.7	3.66	91.4	6.83	14.58	.93	1473.
600	3.47	34.200	595	27.226	89.8	3.43	84.9	7.76	19.77	.84	1473.
700	3.30	34.260	694	27.290	84.2	3.25	78.8	8.63	25.53	.72	1474.
800	3.16	34.314	793	27.346	79.4	3.10	73.4	9.44	31.78	.62	1475.
900	2.98	34.355	892	27.395	75.1	2.92	68.7	10.22	38.47	.60	1476.
1000	2.82	34.391	990	27.438	71.3	2.75	64.6	10.95	45.54	.59	1477.
1200	2.61	34.445	1188	27.499	66.2	2.53	58.7	12.32	60.95	.64	1480.
1500	2.29	34.517	1484	27.584	58.8	2.19	50.6	14.18	86.56	.83	1484.
2000	1.95	34.589	1975	27.669	51.6	1.81	42.3	16.94	135.70	1.40	1491.
2500	1.72	34.634	2466	27.722	47.3	1.55	37.0	19.41	192.31	2.10	1498.
3000	1.60	34.662	2957	27.753	45.2	1.37	33.8	21.71	256.79	2.64	1506.
3500	1.53	34.677	3445	27.771	44.4	1.26	31.8	23.94	330.71	2.99	1514.
4000	1.51	34.677	3934	27.772	45.5	1.19	31.4	26.18	416.21	3.26	1523.
4100	1.52	34.678	4031	27.772	45.8	1.18	31.3	26.64	435.04	3.31	1524.
4200	1.52	34.686	4128	27.778	45.5	1.17	30.6	27.09	454.42	3.33	1526.

OFFSHORE OCEANOGRAPHY GROUP
 REFERENCE NO. 77- 3- 42
 POSITION 50- .0 N, 145-
 HYDROGRAPHIC CAST DATA

DATE 5/ 5/77 GMT 17.7
 .0 W

STATION P

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.54	32.716	0	25.829	217.8	5.54	217.8	.00	.00	7.20	1470.
10	5.47	32.716	10	25.837	217.1	5.47	217.0	.22	.01	7.24	1470.
21	5.52	32.718	21	25.833	217.7	5.52	217.4	.46	.05	7.21	1470.
31	5.49	32.723	31	25.841	217.0	5.49	216.7	.68	.11	7.20	1471.
51	5.38	32.727	51	25.857	215.7	5.38	215.2	1.11	.29	7.24	1470.
78	5.24	32.744	77	25.886	213.2	5.23	212.3	1.68	.66	7.23	1470.
103	4.71	32.779	102	25.972	205.1	4.70	204.1	2.20	1.14	7.24	1469.
129	4.57	33.497	128	26.556	150.0	4.56	148.7	2.67	1.69	4.76	1469.
154	4.59	33.762	153	26.763	130.6	4.58	129.0	3.02	2.20	3.63	1470.
179	4.31	33.794	178	26.819	125.5	4.30	123.8	3.34	2.74	3.12	1469.
204	4.08	33.817	203	26.861	121.6	4.07	119.7	3.65	3.35	2.74	1469.
256	3.92	33.872	254	26.921	116.3	3.90	114.0	4.26	4.78	2.22	1469.
306	3.85	33.931	304	26.975	111.6	3.83	108.9	4.84	6.43	1.78	1470.
407	3.80	34.060	404	27.082	102.2	3.77	98.6	5.91	10.34	1.25	1471.
507	3.69	34.148	503	27.163	95.3	3.65	90.9	6.90	14.93	.91	1473.
609	3.45	34.205	604	27.232	89.3	3.41	84.3	7.84	20.28	.83	1473.
806	3.15	34.317	799	27.349	79.1	3.09	73.1	9.50	32.20	.61	1476.
999	2.82	34.391	989	27.438	71.3	2.75	64.6	10.94	45.45	.59	1477.
1193	2.62	34.443	1181	27.497	66.4	2.54	58.9	12.28	60.40	.63	1480.
1491	2.30	34.516	1475	27.582	58.9	2.20	50.7	14.13	85.79	.82	1483.
1997	1.95	34.589	1973	27.668	51.6	1.81	42.3	16.93	135.42	1.40	1490.
2512	1.72	34.635	2478	27.723	47.2	1.54	36.9	19.47	193.72	2.11	1498.
3027	1.59	34.663	2983	27.755	45.1	1.37	33.6	21.83	260.55	2.66	1506.
3541	1.52	34.678	3485	27.772	44.4	1.25	31.7	24.12	337.20	3.01	1515.
4044	1.51	34.677	3976	27.772	45.6	1.18	31.3	26.38	424.44	3.28	1523.
4143	1.52	34.678	4072	27.772	45.9	1.18	31.3	26.83	443.25	3.33	1525.
4232	1.52	34.690*	4159	27.782	45.3	1.17	30.3	27.24	460.65	3.34*	1527.
4241	1.53	34.691	4168	27.782	45.4	1.18	30.3	27.28	462.46	3.34	1527.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	5.54	32.716	0	25.829	217.8	5.54	217.8	.00	.00	7.20	1470.
10	5.47	32.716	10	25.837	217.1	5.47	217.0	.22	.01	7.24	1470.
20	5.52	32.718	20	25.833	217.6	5.51	217.4	.43	.04	7.21	1470.
30	5.49	32.722	30	25.840	217.1	5.49	216.8	.65	.10	7.21	1470.
50	5.39	32.727	50	25.856	215.8	5.38	215.2	1.09	.28	7.24	1470.
75	5.25	32.743	75	25.884	213.4	5.25	212.6	1.62	.62	7.23	1470.
100	4.76	32.776	99	25.964	205.8	4.75	204.9	2.15	1.09	7.23	1469.
125	4.59	33.401	124	26.477	157.4	4.58	156.2	2.61	1.61	5.09	1469.
150	4.59	33.722	149	26.732	133.5	4.58	132.0	2.97	2.11	3.80	1470.
175	4.35	33.789	174	26.810	126.3	4.34	124.6	3.29	2.64	3.20	1470.
200	4.12	33.813	199	26.854	122.3	4.10	120.4	3.60	3.24	2.81	1469.
225	4.01	33.840	224	26.886	119.3	4.00	117.3	3.90	3.89	2.52	1469.
250	3.94	33.866	248	26.914	116.8	3.92	114.6	4.19	4.61	2.28	1469.
300	3.86	33.924	298	26.968	112.1	3.84	109.5	4.77	6.21	1.83	1470.
400	3.80	34.052	397	27.075	102.8	3.77	99.3	5.84	10.04	1.28	1471.
500	3.70	34.142	496	27.158	95.7	3.66	91.4	6.83	14.58	.93	1473.
600	3.47	34.200	595	27.226	89.8	3.43	84.9	7.76	19.77	.84	1473.
700	3.30	34.260	694	27.290	84.2	3.25	78.8	8.63	25.53	.72	1474.
800	3.16	34.314	793	27.346	79.4	3.10	73.4	9.44	31.78	.62	1475.
900	2.98	34.355	892	27.395	75.1	2.92	68.7	10.22	38.47	.60	1476.
1000	2.82	34.391	990	27.438	71.3	2.75	64.6	10.95	45.54	.59	1477.
1200	2.61	34.445	1188	27.499	66.2	2.53	58.7	12.32	60.95	.64	1480.
1500	2.29	34.517	1484	27.584	58.8	2.19	50.6	14.18	86.56	.83	1484.
2000	1.95	34.589	1975	27.669	51.6	1.81	42.3	16.94	135.70	1.40	1491.
2500	1.72	34.634	2466	27.722	47.3	1.55	37.0	19.41	192.31	2.10	1498.
3000	1.60	34.662	2957	27.753	45.2	1.37	33.8	21.71	256.79	2.64	1506.
3500	1.53	34.677	3445	27.771	44.4	1.26	31.8	23.94	330.71	2.99	1514.
4000	1.51	34.677	3934	27.772	45.5	1.19	31.4	26.18	416.21	3.26	1523.
4100	1.52	34.678	4031	27.772	45.8	1.18	31.3	26.64	435.04	3.31	1524.
4200	1.52	34.686	4128	27.778	45.5	1.17	30.6	27.09	454.42	3.33	1526.

Results of STP Observations

(P-77-3)

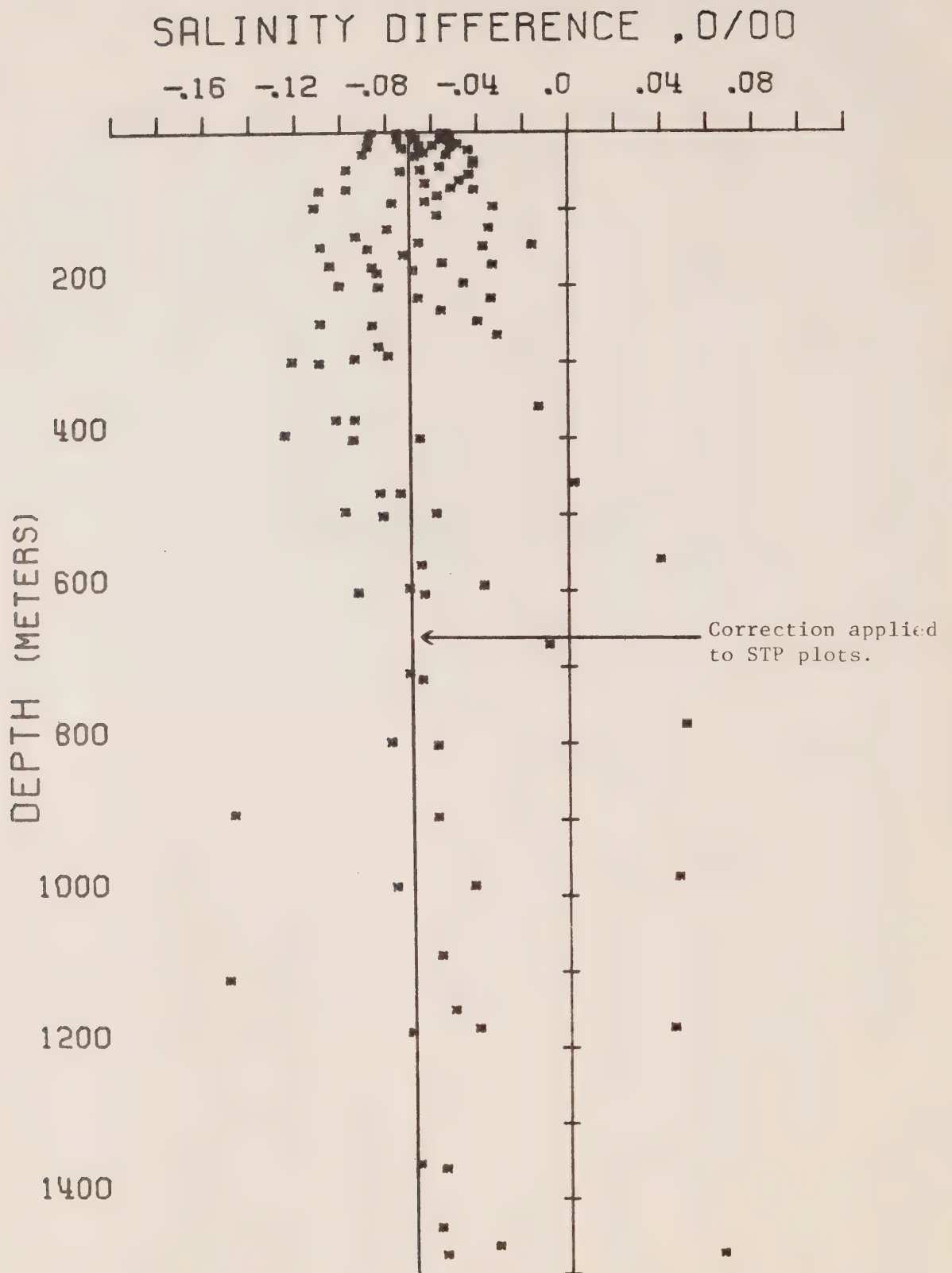


Figure 5. Salinity difference between hydro data and STP. P-77-3.

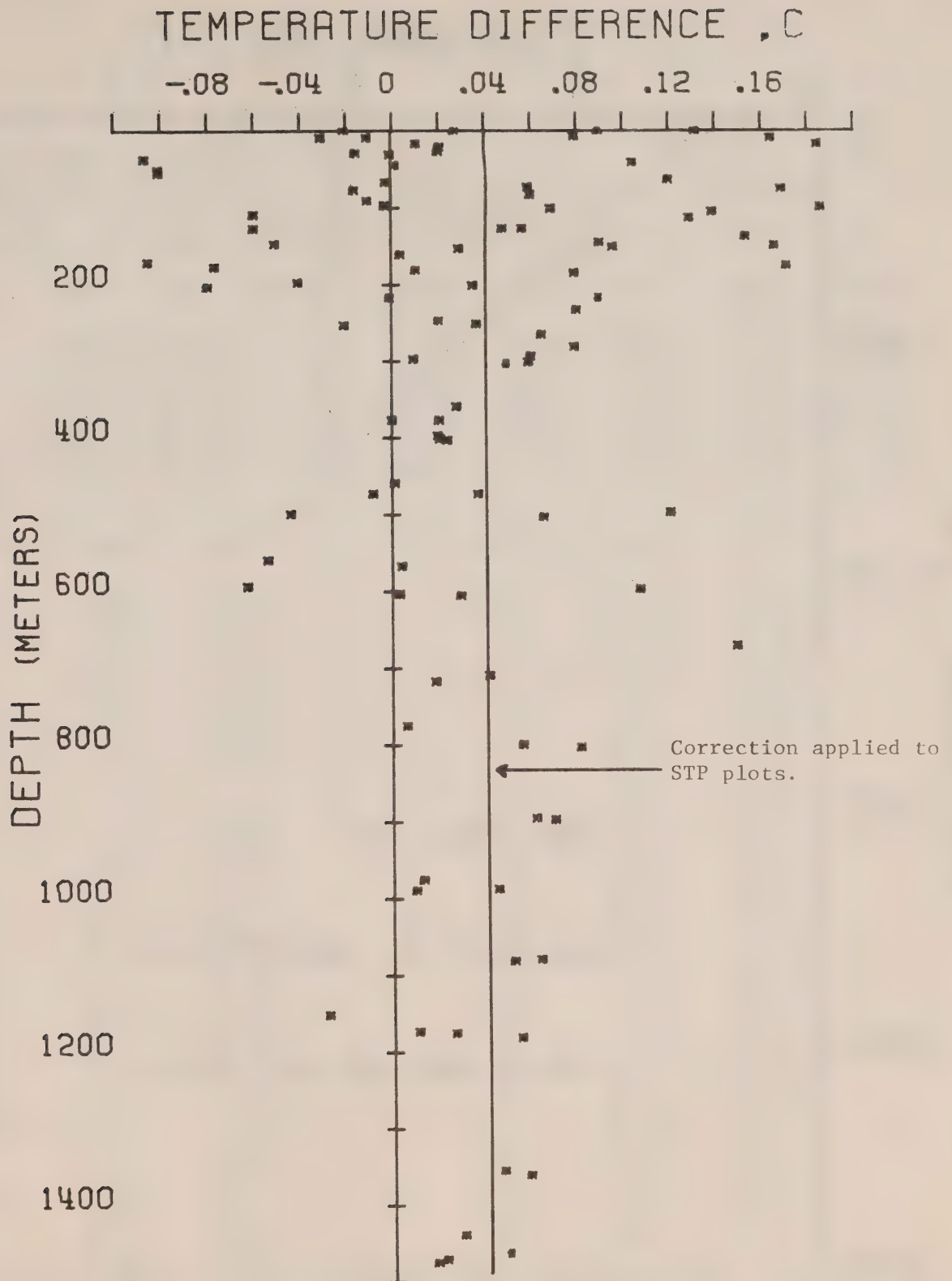
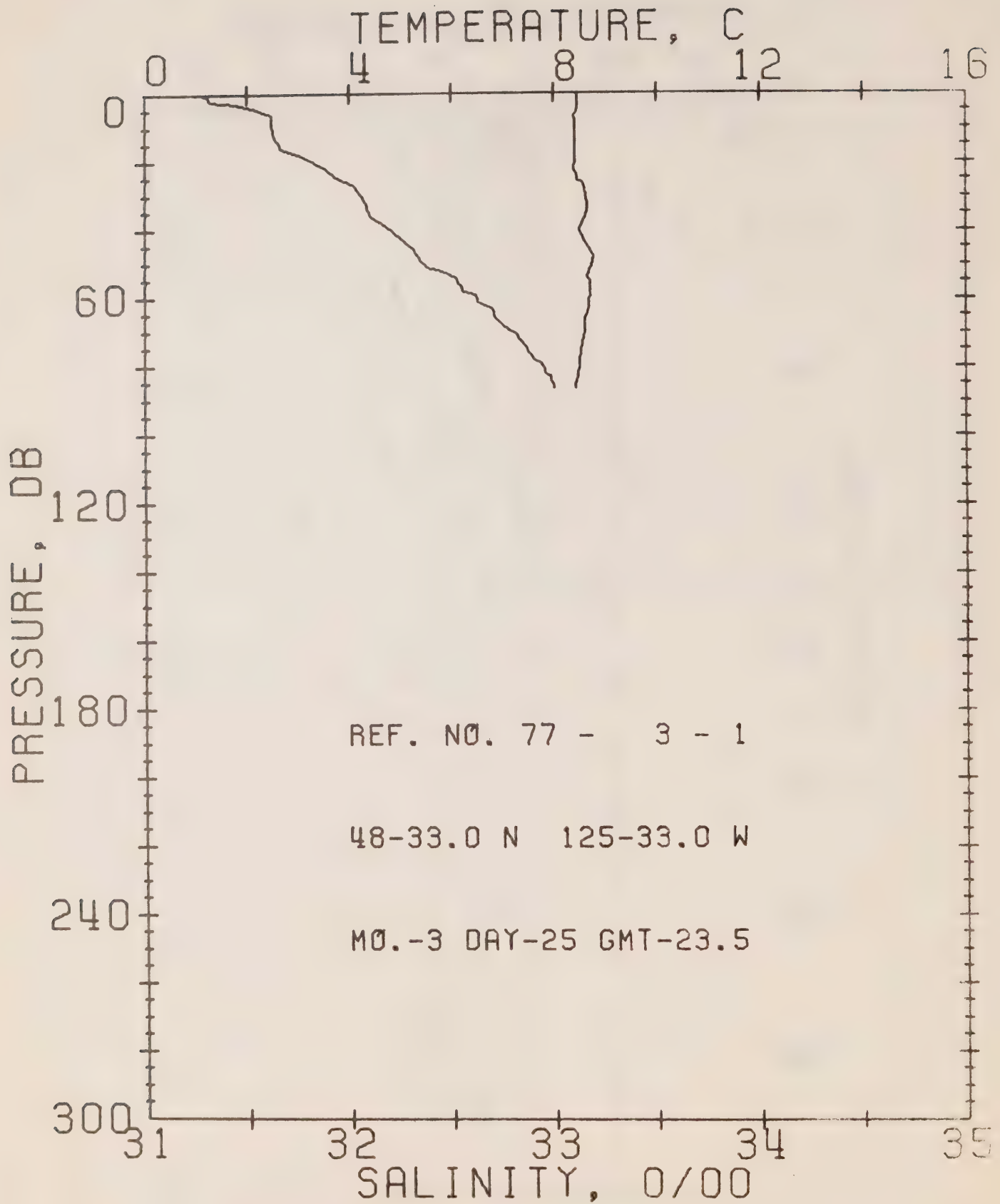


Figure 6. Temperature difference between hydro data and STP. P-77-3.



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DATE 25/ 3/77

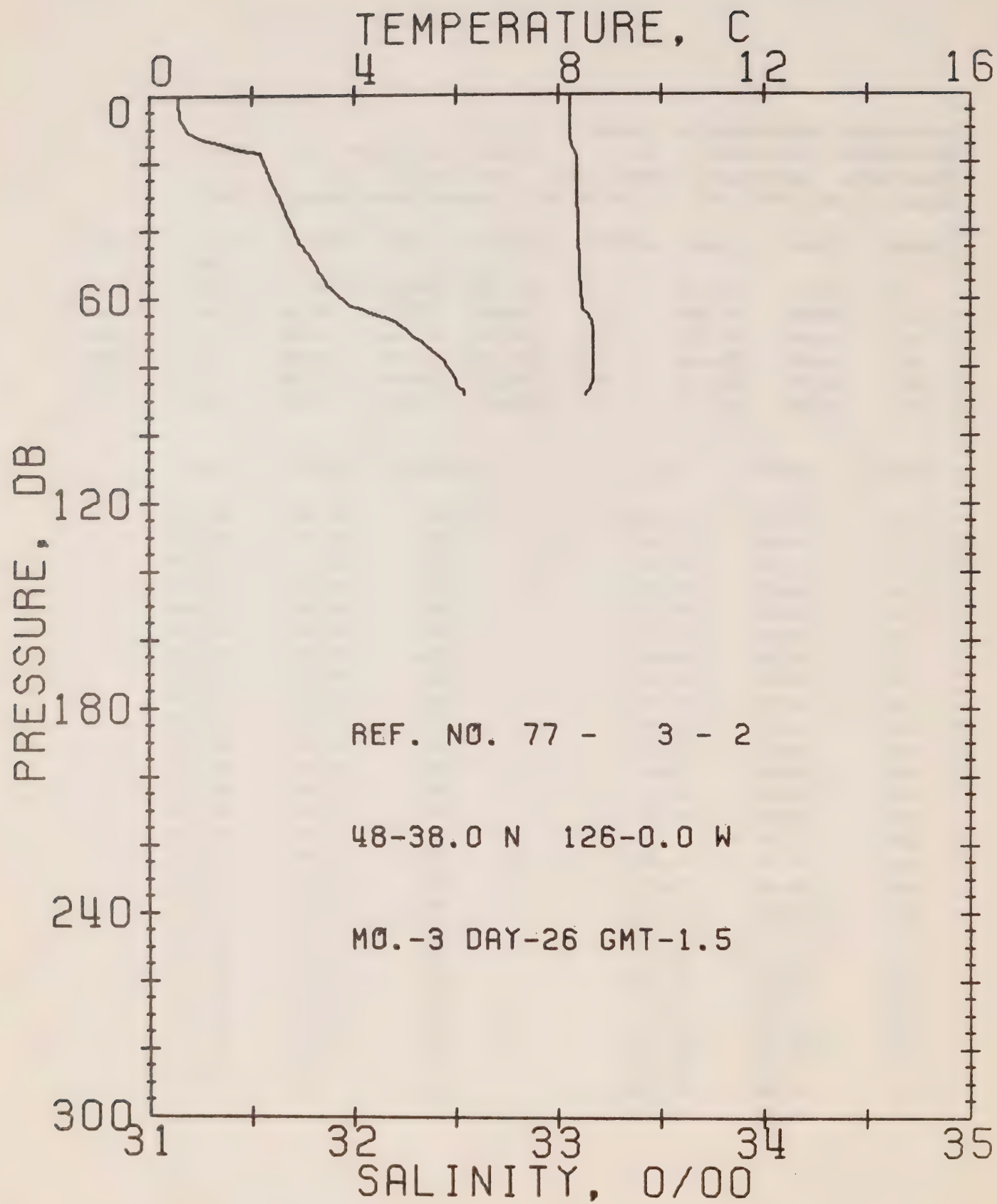
STATION 1

POSITION 48-33.0N, 125-33.0W GMT 23.5

RESULTS OF STP CAST 53 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.49	31.29	0	24.32	361.6	0.0	0.0	1480.
10	8.43	31.62	10	24.59	336.3	0.34	0.02	1480.
20	8.44	31.83	20	24.75	321.2	0.68	0.07	1481.
30	8.65	32.06	30	24.90	307.2	0.99	0.15	1482.
50	8.77	32.36	50	25.12	286.6	1.58	0.39	1483.
75	8.54	32.87	75	25.55	246.2	2.24	0.81	1483.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	8.49	31.29	47.	8.75	32.33
1.	8.49	31.31	48.	8.79	32.34
2.	8.49	31.32	49.	8.78	32.35
3.	8.48	31.45	51.	8.76	32.38
4.	8.47	31.53	52.	8.70	32.46
6.	8.46	31.62	54.	8.67	32.52
7.	8.39	31.62	55.	8.72	32.53
8.	8.43	31.62	58.	8.71	32.56
9.	8.43	31.62	59.	8.71	32.62
12.	8.43	31.63	61.	8.70	32.63
14.	8.43	31.65	62.	8.69	32.67
16.	8.43	31.67	63.	8.68	32.70
18.	8.43	31.77	65.	8.65	32.71
20.	8.44	31.83	66.	8.61	32.72
22.	8.41	31.89	68.	8.61	32.75
24.	8.46	31.93	70.	8.60	32.81
25.	8.49	31.96	73.	8.57	32.85
26.	8.55	32.00	76.	8.53	32.88
27.	8.59	32.02	78.	8.52	32.91
30.	8.65	32.06	79.	8.51	32.94
33.	8.67	32.09	80.	8.50	32.95
34.	8.67	32.09	82.	8.48	32.97
36.	8.64	32.11	83.	8.47	32.99
38.	8.56	32.16	84.	8.46	32.99
40.	8.50	32.21	85.	8.44	33.00
43.	8.59	32.26	86.	8.44	33.00
45.	8.69	32.31			



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REFERENCE NO. 77- 3- 2

DATE 26/ 3/77

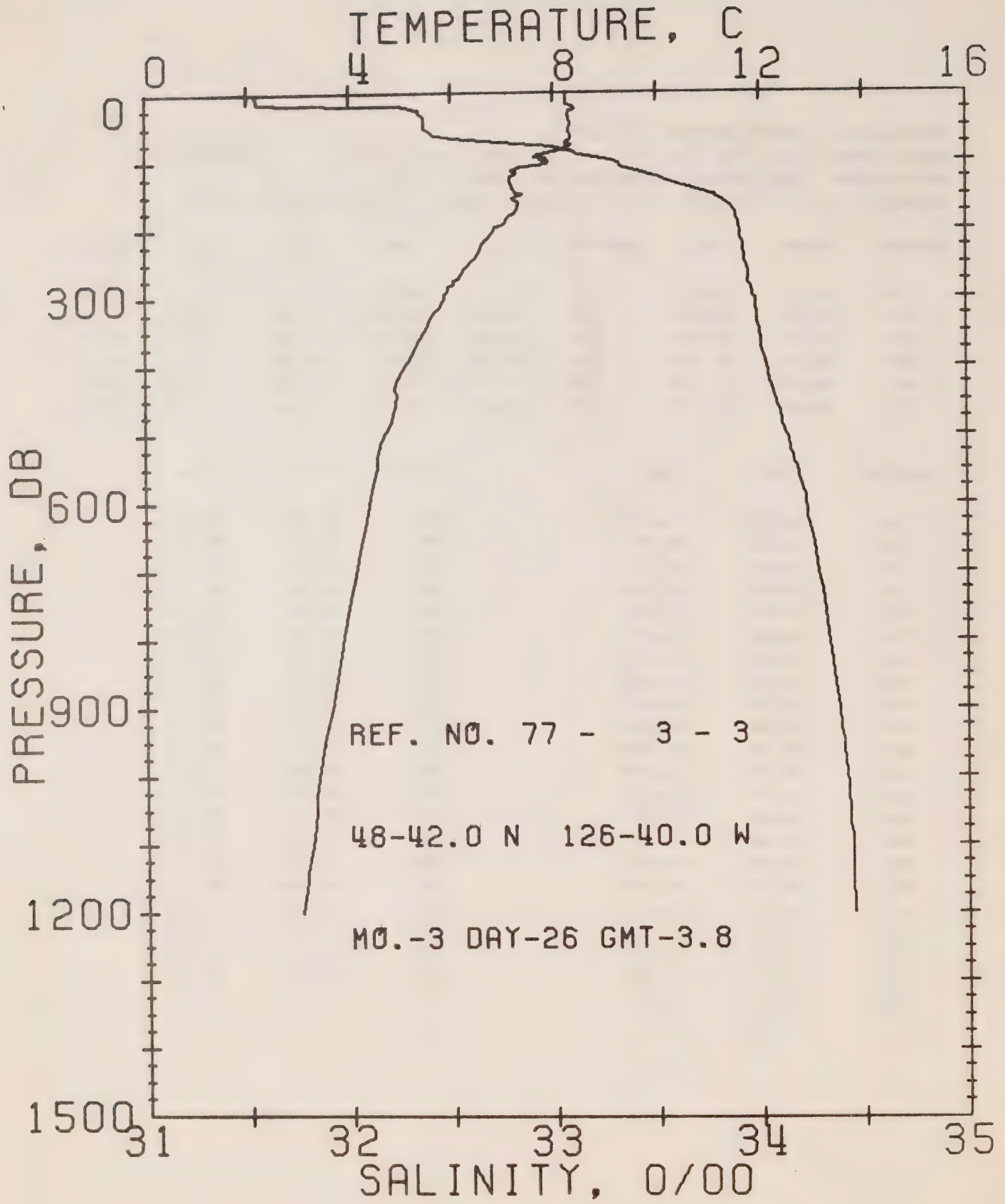
STATION 2

POSITION 48-38.0N, 126- 0.0W GMT 1.5

RESULTS OF STP CAST 43 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.23	31.14	0	24.24	369.1	0.0	0.0	1479.
10	8.24	31.18	10	24.27	366.6	0.37	0.02	1479.
20	8.37	31.56	20	24.55	340.1	0.72	0.07	1480.
30	8.37	31.63	30	24.60	335.0	1.06	0.16	1480.
50	8.42	31.81	50	24.74	322.9	1.72	0.43	1481.
75	8.69	32.38	75	25.14	284.8	2.48	0.91	1483.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	8.23	31.14	57.	8.45	31.89
2.	8.23	31.14	59.	8.46	31.92
7.	8.23	31.15	60.	8.47	31.95
8.	8.23	31.16	62.	8.48	31.98
11.	8.24	31.19	63.	8.49	32.04
13.	8.25	31.26	64.	8.55	32.08
14.	8.26	31.34	66.	8.67	32.19
15.	8.27	31.38	69.	8.68	32.25
16.	8.31	31.45	71.	8.69	32.29
17.	8.34	31.54	72.	8.70	32.33
18.	8.37	31.55	73.	8.70	32.34
26.	8.37	31.60	76.	8.69	32.40
31.	8.37	31.64	77.	8.69	32.42
35.	8.40	31.67	78.	8.69	32.44
40.	8.41	31.71	80.	8.68	32.46
42.	8.41	31.72	82.	8.68	32.49
44.	8.41	31.74	84.	8.69	32.50
47.	8.42	31.78	85.	8.65	32.51
49.	8.42	31.80	86.	8.63	32.52
52.	8.43	31.83	87.	8.59	32.54
53.	8.43	31.84	88.	8.54	32.54
56.	8.45	31.87			



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REFERENCE NO. 77- 3- 3

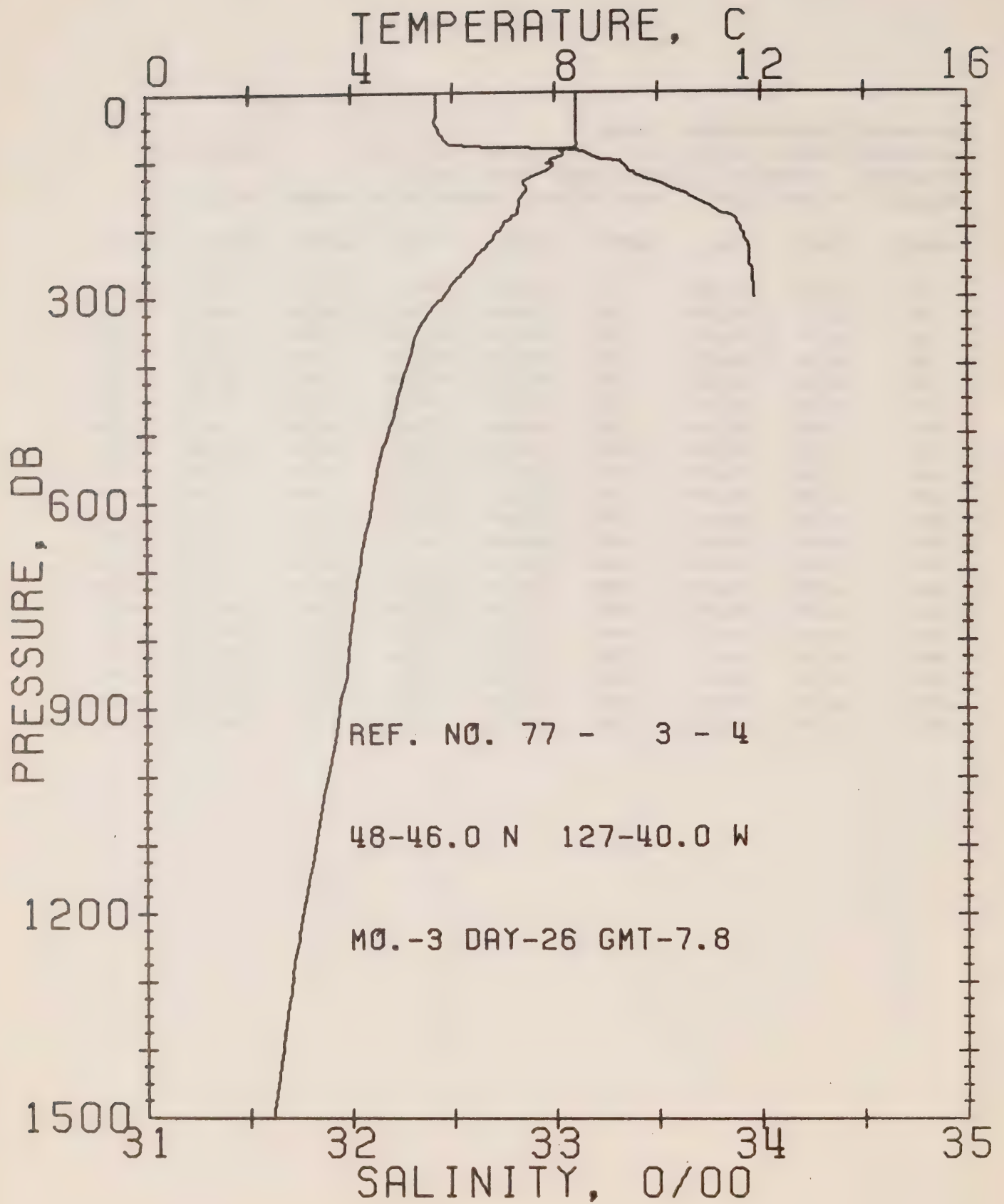
DATE 26/ 3/77

STATION 3

POSITION 48-42.0N, 126-40.0W GMT 3.8

RESULTS OF STP CAST 167 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.27	31.55	0	24.55	339.1	0.0	0.0	1479.
10	8.27	31.55	10	24.55	339.5	0.34	0.02	1480.
20	8.32	32.26	20	25.10	287.5	0.67	0.07	1481.
30	8.30	32.35	30	25.18	280.7	0.95	0.14	1481.
50	8.33	32.37	50	25.19	279.9	1.51	0.37	1482.
75	8.34	32.91	75	25.61	240.3	2.18	0.80	1483.
100	7.87	33.30	99	25.98	205.0	2.74	1.29	1482.
125	7.15	33.52	124	26.26	179.3	3.22	1.84	1480.
150	7.38	33.78	149	26.43	163.1	3.64	2.43	1481.
175	7.25	33.89	174	26.53	153.8	4.04	3.08	1481.
200	6.82	33.90	199	26.60	147.4	4.41	3.80	1480.
225	6.57	33.92	223	26.65	143.3	4.78	4.59	1480.
250	6.37	33.93	248	26.69	140.1	5.13	5.45	1479.
300	5.87	33.97	298	26.78	131.2	5.81	7.34	1478.
400	5.08	34.03	397	26.93	118.5	7.06	11.79	1477.
500	4.67	34.13	496	27.04	107.8	8.19	16.98	1477.
600	4.38	34.22	595	27.15	98.2	9.22	22.72	1477.
800	3.86	34.33	793	27.30	85.7	11.05	35.77	1478.
1000	3.36	34.41	991	27.41	75.7	12.66	50.51	1480.
1200	3.02	34.45	1188	27.47	70.5	14.12	66.86	1482.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 4

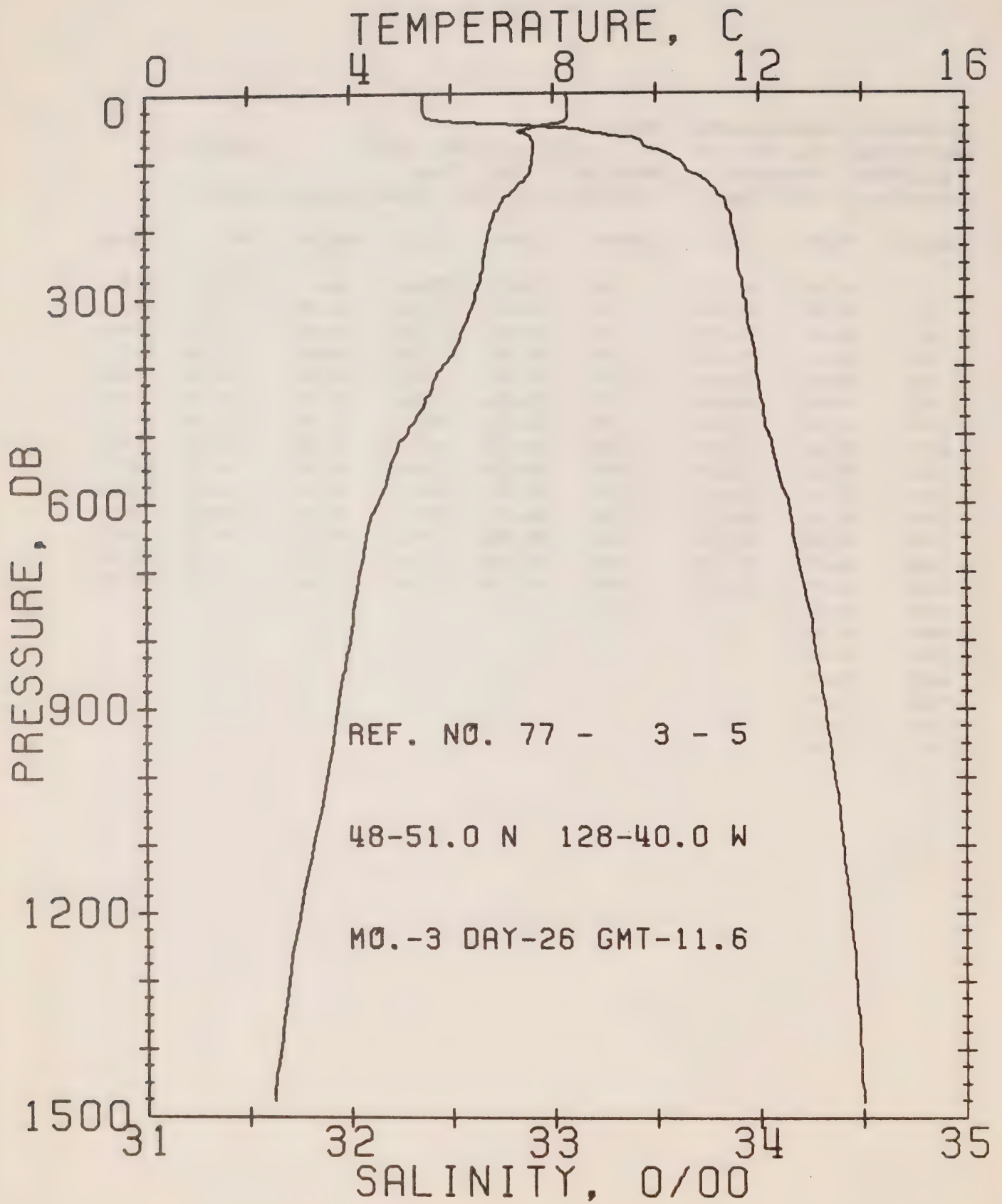
DATE 26/ 3/77

STATION 4

POSITION 48-46.0N, 127-40.0W GMT 7.8

RESULTS OF STP CAST 185 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.43	32.42	0	25.21	276.6	0.0	0.0	1481.
10	8.44	32.42	10	25.21	277.1	0.28	0.01	1481.
20	8.44	32.42	20	25.21	277.3	0.55	0.06	1482.
30	8.44	32.42	30	25.21	277.4	0.83	0.13	1482.
50	8.44	32.42	50	25.21	277.9	1.39	0.35	1482.
75	8.45	32.48	75	25.26	273.8	2.08	0.79	1483.
100	7.92	33.28	99	25.96	207.3	2.66	1.31	1482.
125	7.52	33.43	124	26.13	190.9	3.16	1.88	1481.
150	7.38	33.65	149	26.33	173.0	3.61	2.51	1481.
175	7.28	33.80	174	26.46	160.9	4.03	3.20	1481.
200	6.96	33.91	199	26.59	148.8	4.41	3.93	1481.
225	6.67	33.94	223	26.65	143.1	4.77	4.72	1480.
250	6.39	33.95	248	26.70	139.0	5.12	5.57	1479.
300	5.81	33.97	298	26.79	130.8	5.80	7.46	1478.
400	5.10							
500	4.73							
600	4.40							
800	3.97							
1000	3.52							
1200	3.03							
1500	2.44							



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REFERENCE NO. 77- 3- 5

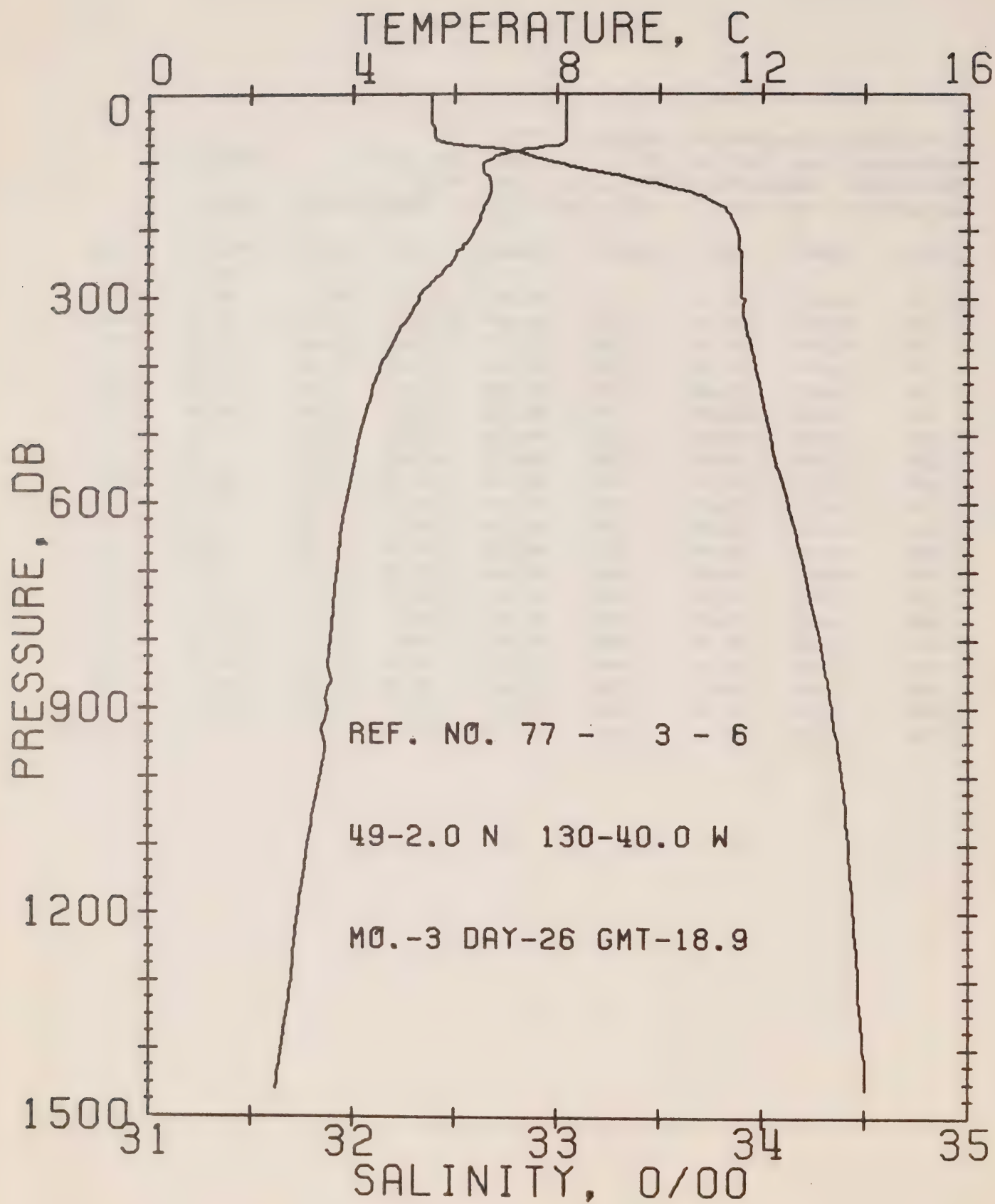
DATE 26/ 3/77

STATION 5

POSITION 48-51.0N, 128-40.0W GMT 11.6

RESULTS OF STP CAST 163 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.27	32.37	0	25.20	278.1	0.0	0.0	1481.
10	8.28	32.36	10	25.19	279.3	0.28	0.01	1481.
20	8.28	32.36	20	25.19	279.4	0.56	0.06	1481.
30	8.29	32.37	30	25.19	279.2	0.84	0.13	1481.
50	7.63	33.02	50	25.80	221.8	1.36	0.34	1480.
75	7.62	33.44	75	26.13	190.8	1.87	0.66	1481.
100	7.59	33.62	99	26.28	177.1	2.32	1.07	1481.
125	7.48	33.73	124	26.38	168.2	2.76	1.56	1481.
150	7.12	33.81	149	26.49	157.5	3.17	2.13	1480.
175	6.85	33.86	174	26.57	150.5	3.55	2.77	1480.
200	6.75	33.88	199	26.59	148.5	3.92	3.48	1480.
225	6.68	33.90	223	26.62	146.5	4.29	4.28	1480.
250	6.64	33.90	248	26.63	145.9	4.66	5.17	1480.
300	6.47	33.93	298	26.67	142.2	5.38	7.19	1480.
400	5.83	33.99	397	26.80	130.8	6.75	12.06	1480.
500	5.12	34.05	496	26.93	119.0	8.00	17.81	1478.
600	4.53	34.14	595	27.07	105.9	9.12	24.09	1478.
800	3.99	34.26	793	27.22	92.8	11.10	38.15	1479.
1000	3.53	34.36	991	27.35	81.3	12.83	54.02	1480.
1200	2.99	34.44	1188	27.46	71.0	14.35	71.02	1482.



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REFERENCE NO. 77- 3- 6

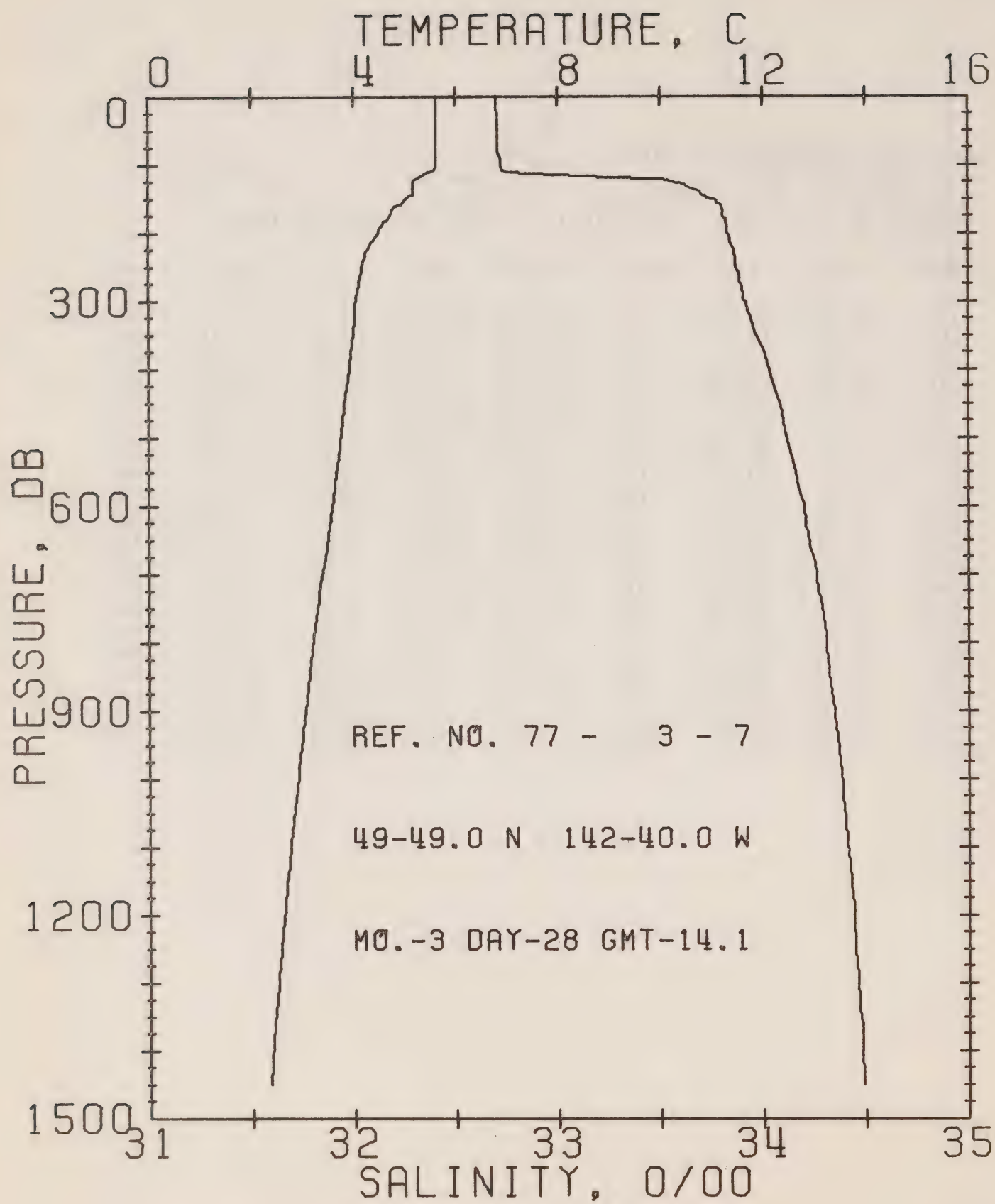
DATE 26/ 3/77

STATION 6

POSITION 49- 2.0N, 130-40.0W GMT 18.9

RESULTS OF STP CAST 179 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.20	32.39	0	25.22	275.6	0.0	0.0	1480.
10	8.20	32.39	10	25.22	275.9	0.28	0.01	1480.
20	8.20	32.39	20	25.22	276.1	0.55	0.06	1481.
30	8.20	32.39	30	25.22	276.2	0.83	0.13	1481.
50	8.20	32.40	50	25.23	276.0	1.38	0.35	1481.
75	8.05	32.56	75	25.38	262.2	2.07	0.79	1481.
100	6.60	32.99	99	25.91	211.5	2.64	1.30	1476.
125	6.69	33.37	124	26.21	184.1	3.14	1.86	1478.
150	6.68	33.71	149	26.47	159.3	3.56	2.46	1479.
175	6.52	33.84	174	26.59	148.2	3.95	3.09	1478.
200	6.38	33.88	199	26.64	143.4	4.31	3.79	1478.
225	6.15	33.89	223	26.68	140.1	4.66	4.56	1478.
250	5.92	33.90	248	26.72	136.8	5.01	5.39	1477.
300	5.30	33.90	298	26.80	129.5	5.67	7.26	1476.
400	4.54	33.97	397	26.94	117.0	6.91	11.65	1474.
500	4.14	34.04	496	27.03	108.3	8.04	16.81	1474.
600	3.87	34.12	595	27.13	99.8	9.08	22.65	1475.
800	3.56	34.28	793	27.28	86.2	10.93	35.84	1477.
1000	3.37	34.39	991	27.39	77.6	12.58	50.87	1480.
1200	2.93	34.44	1188	27.47	69.8	14.04	67.29	1481.



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REFERENCE NO. 77- 3- 7

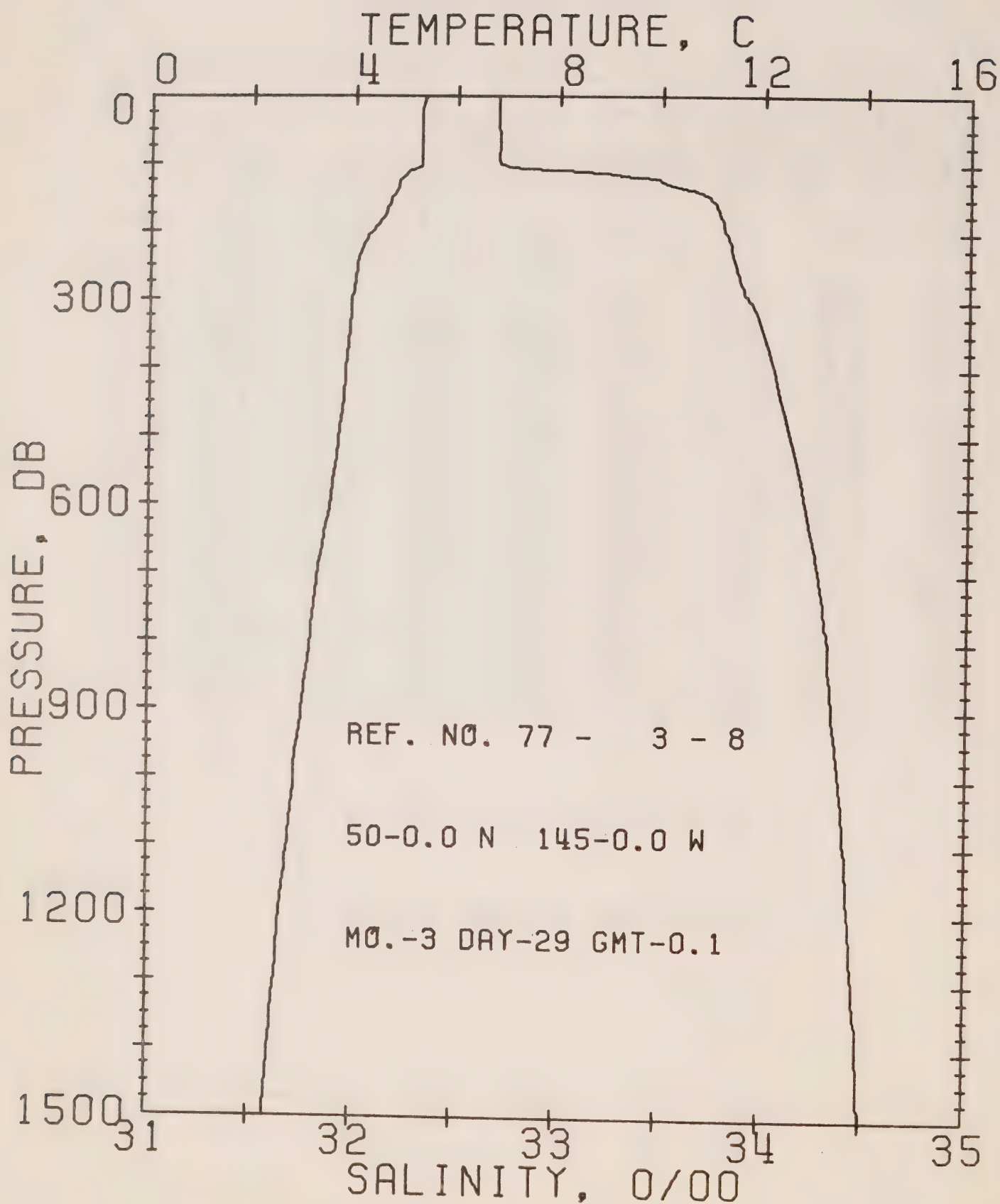
DATE 28/ 3/77

STATION 12

POSITION 49-49.0N, 142-40.0W GMT 14.1

RESULTS OF STP CAST 144 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.62	32.70	0	25.81	219.9	0.0	0.0	1470.
10	5.62	32.70	10	25.81	220.2	0.22	0.01	1471.
20	5.62	32.70	20	25.81	220.3	0.44	0.04	1471.
30	5.63	32.71	30	25.81	219.8	0.66	0.10	1471.
50	5.63	32.71	50	25.81	220.0	1.10	0.28	1471.
75	5.64	32.71	75	25.81	220.3	1.65	0.63	1472.
100	5.63	32.72	99	25.82	219.8	2.20	1.12	1472.
125	5.17	33.56	124	26.54	151.9	2.69	1.68	1472.
150	5.03	33.77	149	26.72	134.8	3.05	2.18	1472.
175	4.70	33.81	174	26.79	128.6	3.38	2.72	1471.
200	4.47	33.83	199	26.83	124.7	3.69	3.33	1471.
225	4.26	33.86	223	26.88	120.5	4.00	3.99	1470.
250	4.17	33.87	248	26.90	119.1	4.30	4.71	1470.
300	4.05	33.92	298	26.95	114.5	4.88	6.35	1471.
400	3.92	34.03	397	27.05	105.6	5.98	10.27	1472.
500	3.75	34.12	496	27.13	98.2	7.00	14.93	1473.
600	3.58	34.20	595	27.22	91.0	7.95	20.22	1474.
800	3.19	34.31	793	27.34	80.1	9.66	32.38	1476.
1000	2.89	34.38	990	27.43	72.7	11.18	46.37	1478.
1200	2.62	34.44	1188	27.50	66.8	12.58	61.96	1480.



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REFERENCE NO. 77- 3- 8

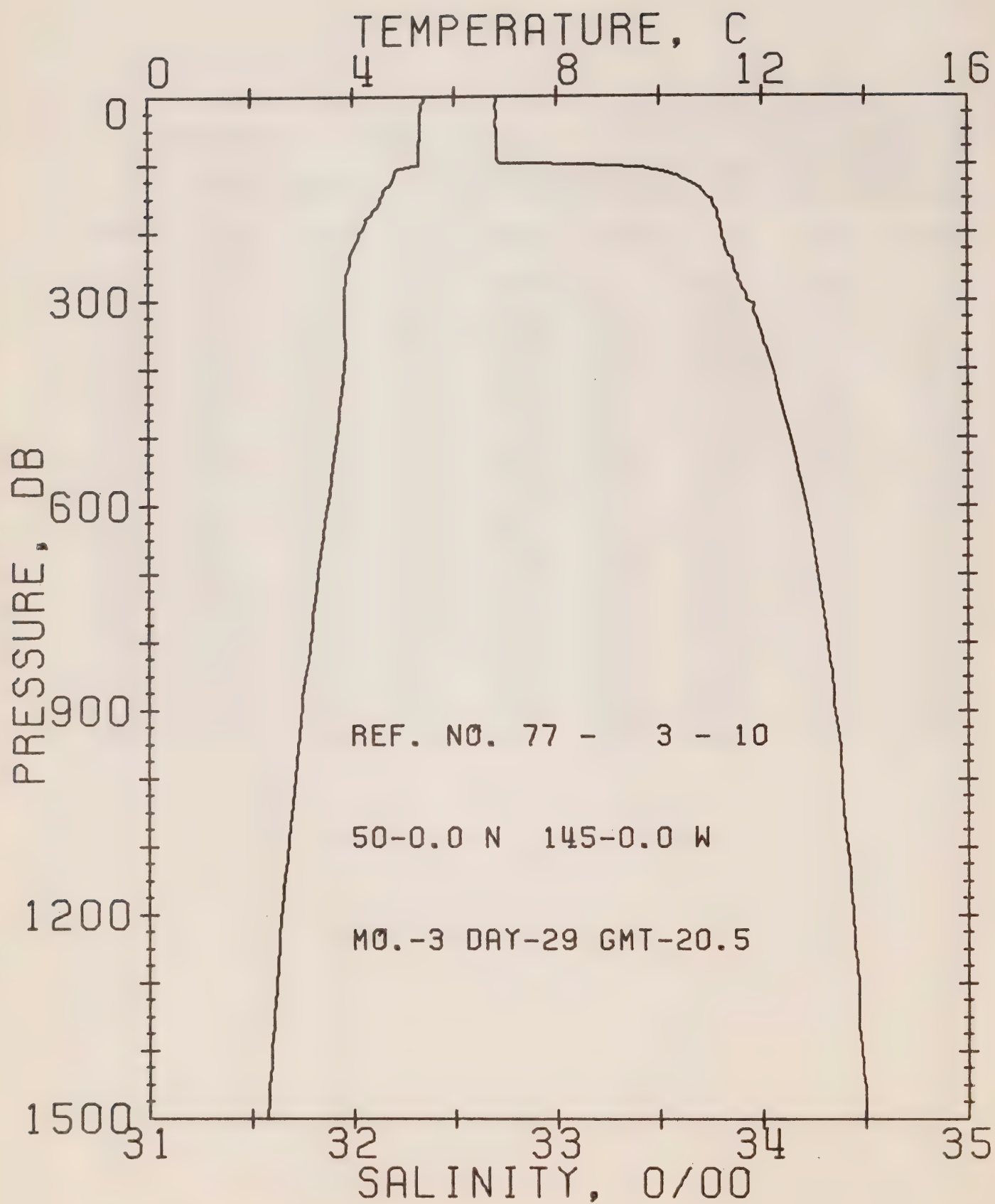
DATE 29/ 3/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 0.1

RESULTS OF STP CAST 139 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.39	32.70	0	25.83	217.3	0.0	0.0	1470.
10	5.35	32.70	10	25.84	217.2	0.22	0.01	1470.
20	5.31	32.70	20	25.84	216.8	0.43	0.04	1470.
30	5.31	32.70	30	25.84	216.9	0.65	0.10	1470.
50	5.32	32.70	50	25.84	217.0	1.09	0.28	1470.
75	5.32	32.71	75	25.85	216.7	1.63	0.62	1470.
100	5.31	32.71	99	25.85	216.9	2.17	1.11	1471.
125	4.88	33.51	124	26.53	152.5	2.62	1.62	1471.
150	4.73	33.74	149	26.73	133.8	2.98	2.12	1471.
175	4.58	33.79	174	26.79	128.7	3.31	2.66	1471.
200	4.33	33.81	199	26.83	124.5	3.62	3.27	1470.
225	4.13	33.84	223	26.88	120.6	3.93	3.93	1470.
250	4.05	33.87	248	26.90	118.1	4.23	4.65	1470.
300	3.95	33.94	298	26.97	112.0	4.81	6.27	1470.
400	3.86	34.05	397	27.07	103.4	5.88	10.09	1472.
500	3.72	34.13	496	27.15	96.6	6.88	14.68	1473.
600	3.54	34.21	595	27.23	89.9	7.81	19.89	1474.
800	3.18	34.33	793	27.36	78.8	9.49	31.81	1476.
1000	2.88	34.38	990	27.43	72.5	11.01	45.71	1478.
1200	2.62	34.44	1188	27.49	67.0	12.40	61.30	1480.
1500	2.31	34.50	1483	27.57	60.3	14.30	87.47	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 10

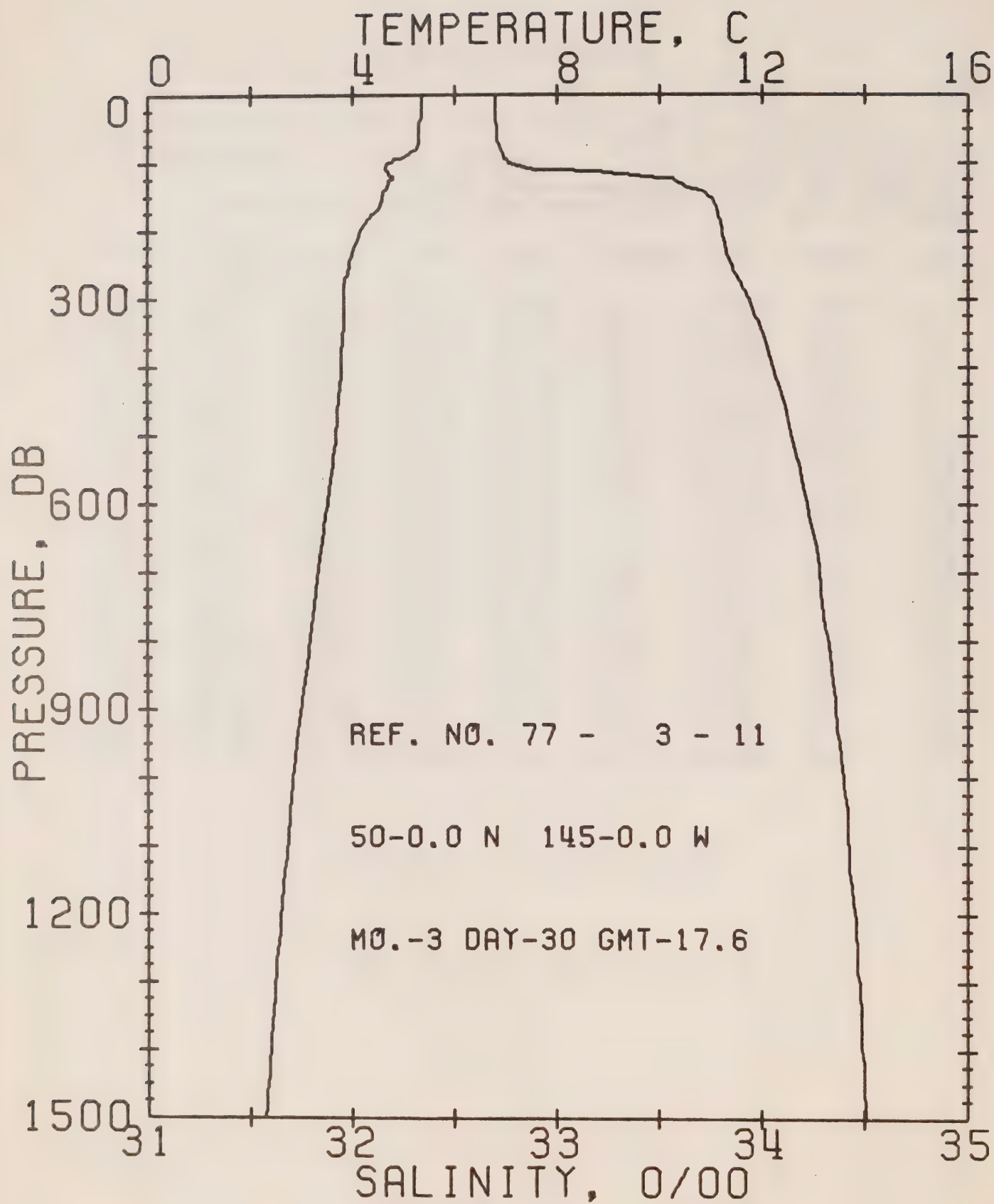
DATE 29/ 3/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 20.5

RESULTS OF STP CAST 156 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.41	32.71	0	25.84	216.8	0.0	0.0	1470.
10	5.37	32.71	10	25.84	216.8	0.22	0.01	1470.
20	5.35	32.70	20	25.84	216.9	0.43	0.04	1470.
30	5.34	32.71	30	25.85	216.5	0.65	0.10	1470.
50	5.33	32.71	50	25.85	217.0	1.08	0.28	1470.
75	5.32	32.71	75	25.85	216.7	1.63	0.62	1470.
100	5.32	33.15	99	26.20	184.0	2.17	1.10	1471.
125	4.77	33.65	124	26.66	140.7	2.55	1.54	1470.
150	4.55	33.75	149	26.76	131.2	2.89	2.02	1470.
175	4.34	33.79	174	26.81	126.2	3.21	2.55	1470.
200	4.15	33.81	199	26.85	123.0	3.52	3.14	1469.
225	4.00	33.83	223	26.88	120.4	3.83	3.80	1469.
250	3.94	33.87	248	26.92	116.9	4.12	4.52	1469.
300	3.83	33.93	298	26.98	111.4	4.69	6.12	1470.
400	3.82	34.05	397	27.08	102.9	5.76	9.92	1471.
500	3.68	34.14	496	27.16	95.9	6.76	14.47	1472.
600	3.50	34.21	595	27.23	89.3	7.68	19.66	1473.
800	3.15	34.32	793	27.35	79.1	9.36	31.59	1475.
1000	2.84	34.39	990	27.44	71.9	10.86	45.34	1477.
1200	2.57	34.44	1188	27.50	66.2	12.24	60.81	1480.
1500	2.28	34.50	1483	27.57	60.0	14.13	86.73	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 11

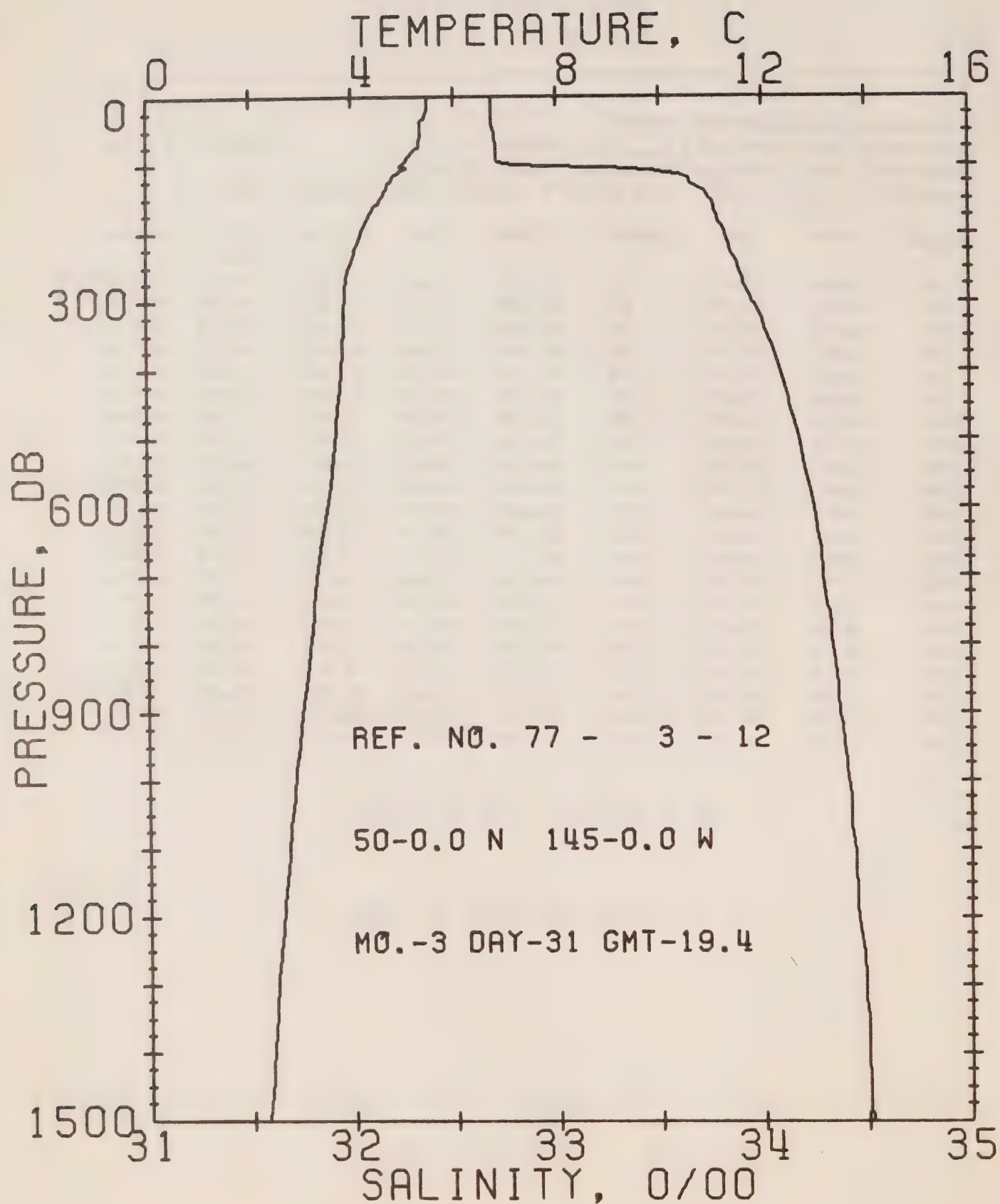
DATE 30/ 3/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.6

RESULTS OF STP CAST 157 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.36	32.71	0	25.85	216.3	0.0	0.0	1469.
10	5.35	32.70	10	25.84	217.2	0.22	0.01	1470.
20	5.35	32.70	20	25.84	217.3	0.43	0.04	1470.
30	5.35	32.70	30	25.84	217.4	0.65	0.10	1470.
50	5.31	32.71	50	25.85	216.4	1.09	0.28	1470.
75	5.29	32.72	75	25.86	215.7	1.63	0.62	1470.
100	4.75	32.76	99	25.95	207.1	2.16	1.09	1469.
125	4.75	33.57	124	26.60	146.2	2.61	1.60	1470.
150	4.60	33.74	149	26.75	132.1	2.95	2.09	1470.
175	4.40	33.79	174	26.81	126.8	3.28	2.63	1470.
200	4.16	33.81	199	26.85	123.0	3.59	3.22	1469.
225	4.03	33.82	223	26.87	120.9	3.89	3.88	1469.
250	3.95	33.86	248	26.91	117.8	4.19	4.61	1469.
300	3.84	33.94	298	26.98	110.8	4.76	6.21	1470.
400	3.79	34.06	397	27.08	102.4	5.83	9.99	1471.
500	3.68	34.15	496	27.16	95.3	6.81	14.51	1473.
600	3.51	34.22	595	27.24	88.6	7.73	19.67	1474.
800	3.17	34.32	793	27.35	78.8	9.40	31.52	1476.
1000	2.84	34.40	990	27.45	70.9	10.90	45.23	1478.
1200	2.61	34.46	1188	27.51	65.2	12.26	60.52	1480.
1500	2.30	34.51	1483	27.58	59.5	14.13	86.16	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 12

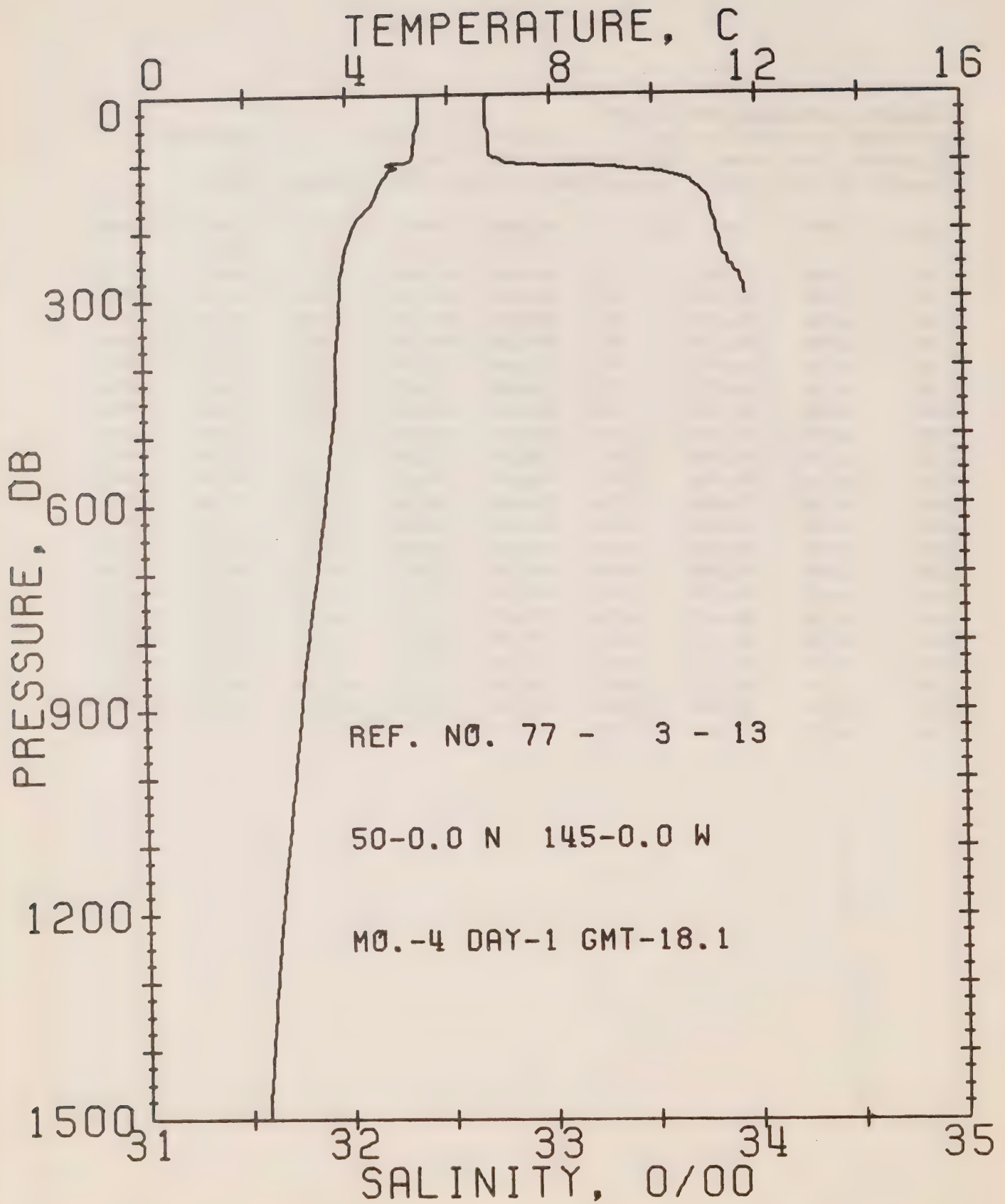
DATE 31/ 3/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 19.4

RESULTS OF STP CAST 138 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.49	32.69	0	25.82	219.2	0.0	0.0	1470.
10	5.49	32.69	10	25.82	219.5	0.22	0.01	1470.
20	5.48	32.69	20	25.82	219.4	0.44	0.04	1470.
30	5.44	32.69	30	25.82	219.2	0.66	0.10	1470.
50	5.35	32.70	50	25.84	217.9	1.09	0.28	1470.
75	5.31	32.71	75	25.85	216.7	1.64	0.62	1470.
100	4.99	32.80	99	25.96	206.6	2.17	1.10	1470.
125	4.75	33.65	124	26.66	140.5	2.57	1.55	1470.
150	4.58	33.74	149	26.75	132.0	2.91	2.03	1470.
175	4.32	33.78	174	26.81	126.7	3.23	2.56	1469.
200	4.18	33.82	199	26.85	122.4	3.54	3.16	1469.
225	4.06	33.84	223	26.88	119.8	3.85	3.81	1469.
250	3.95	33.88	248	26.93	115.8	4.14	4.52	1469.
300	3.86	33.95	298	26.99	110.3	4.70	6.10	1470.
400	3.80	34.09	397	27.10	100.3	5.75	9.83	1471.
500	3.66	34.17	496	27.19	93.1	6.72	14.25	1472.
600	3.50	34.24	595	27.26	86.9	7.62	19.30	1474.
800	3.16	34.33	793	27.36	77.9	9.26	30.97	1475.
1000	2.84	34.41	990	27.45	70.3	10.74	44.53	1478.
1200	2.60	34.45	1188	27.51	65.4	12.09	59.70	1480.
1500	2.30	34.52	1483	27.59	58.8	13.94	85.08	1484.



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REFERENCE NO. 77- 3- 13

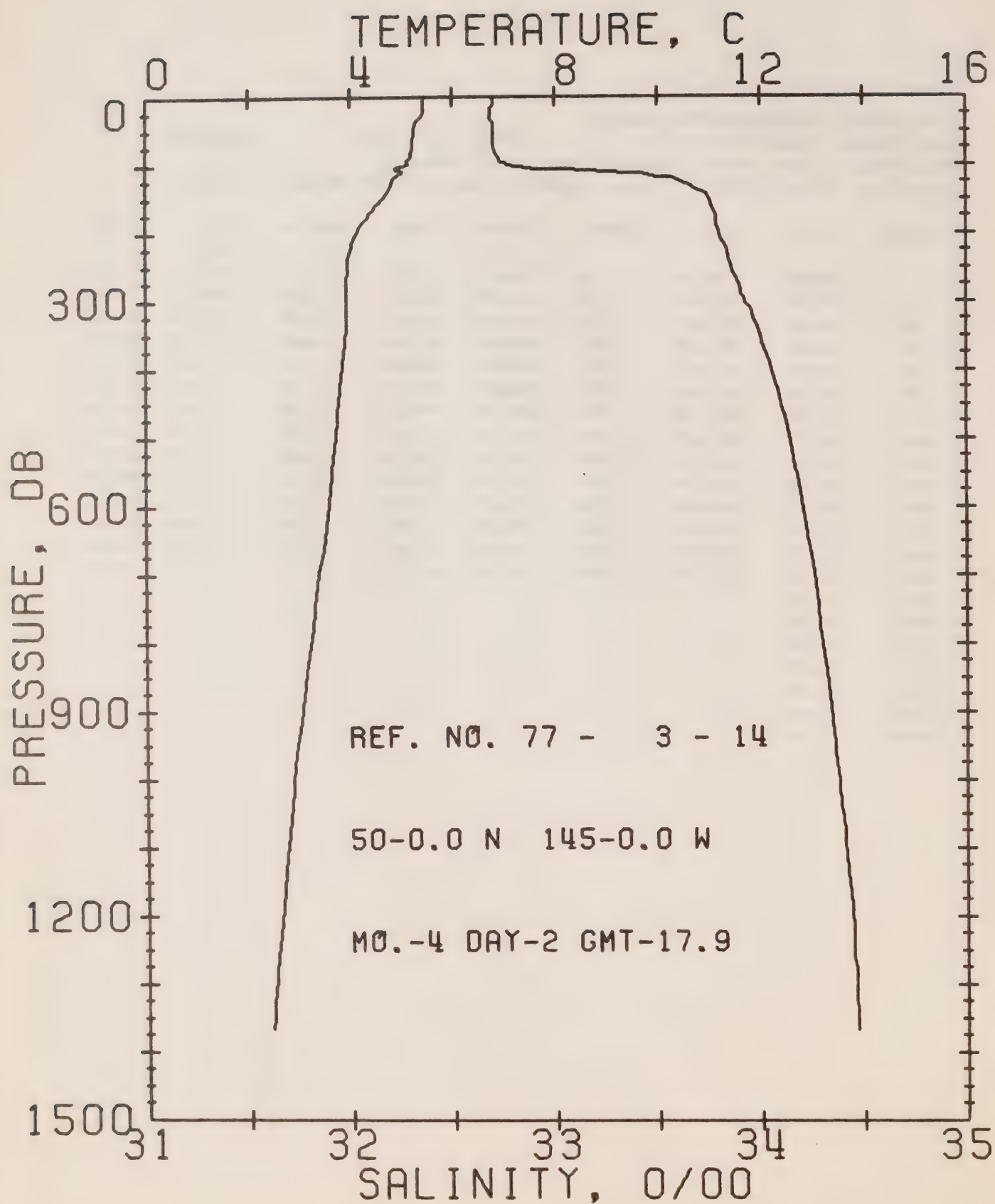
DATE 1/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.1

RESULTS OF STP CAST 144 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.45	32.70	0	25.83	218.0	0.0	0.0	1470.
10	5.44	32.69	10	25.82	218.9	0.22	0.01	1470.
20	5.44	32.69	20	25.82	219.0	0.44	0.04	1470.
30	5.44	32.69	30	25.82	219.1	0.66	0.10	1470.
50	5.40	32.69	50	25.83	218.8	1.09	0.28	1470.
75	5.34	32.70	75	25.84	217.7	1.64	0.63	1471.
100	5.20	32.79	99	25.93	209.6	2.18	1.11	1471.
125	4.73	33.67	124	26.67	139.1	2.58	1.57	1470.
150	4.56	33.77	149	26.77	130.0	2.92	2.04	1470.
175	4.31	33.79	174	26.81	126.1	3.24	2.57	1469.
200	4.10	33.81	199	26.86	122.4	3.55	3.16	1469.
225	3.99	33.83	223	26.88	119.9	3.85	3.81	1469.
250	3.92	33.88	248	26.93	116.0	4.15	4.53	1469.
300	3.86	33.95	298	26.99	110.3	4.71	6.10	1470.
400	3.76							
500	3.68							
600	3.54							
800	3.17							
1000	2.89							
1200	2.61							
1500	2.31							



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 14

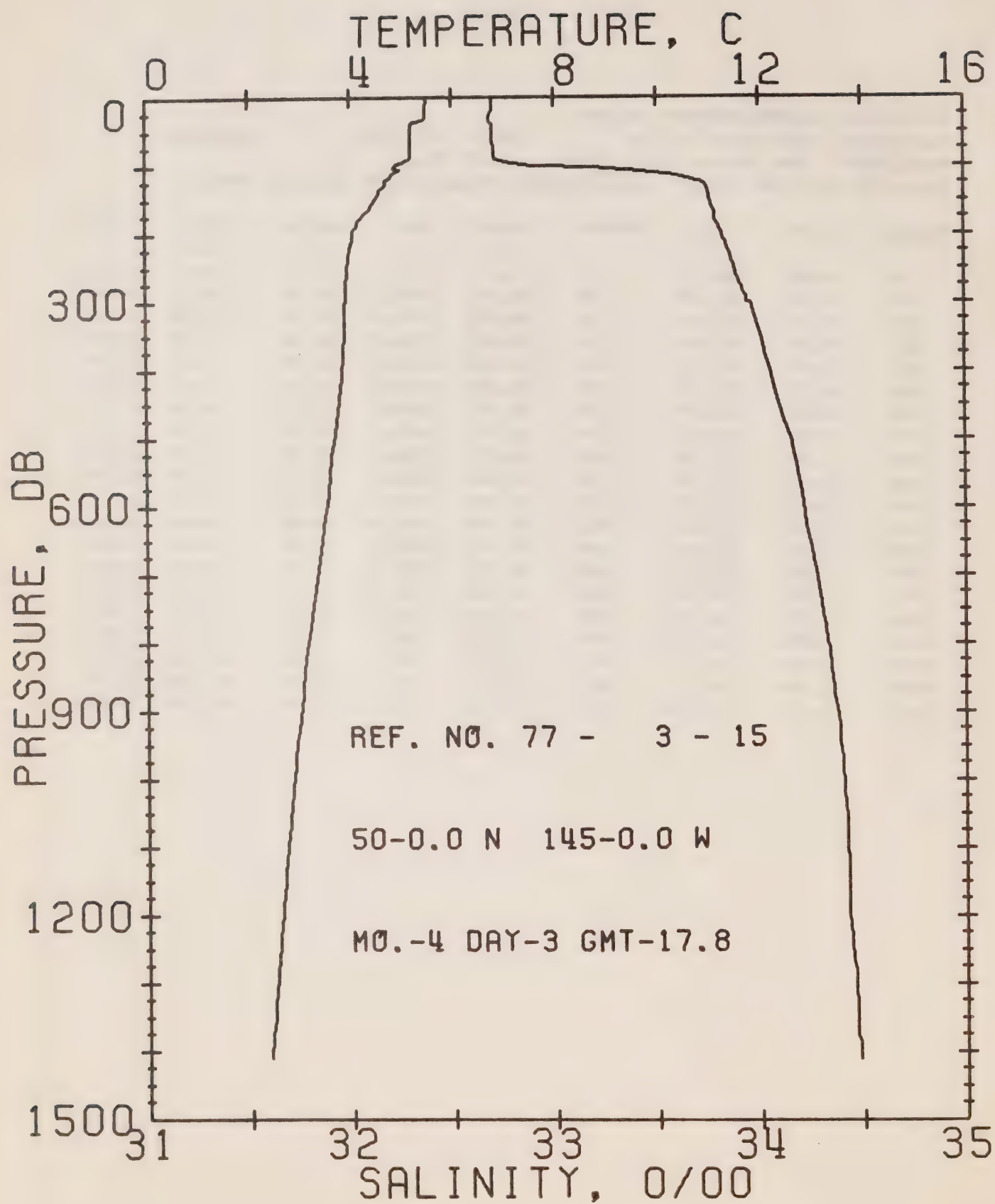
DATE 2/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.9

RESULTS OF STP CAST 148 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.45	32.70	0	25.83	218.0	0.0	0.0	1470.
10	5.44	32.70	10	25.83	218.1	0.22	0.01	1470.
20	5.43	32.69	20	25.82	218.9	0.44	0.04	1470.
30	5.40	32.69	30	25.83	218.7	0.66	0.10	1470.
50	5.24	32.70	50	25.85	216.4	1.09	0.28	1470.
75	5.22	32.70	75	25.86	216.3	1.63	0.62	1470.
100	5.14	32.77	99	25.92	210.5	2.17	1.10	1470.
125	4.81	33.62	124	26.63	143.5	2.59	1.59	1470.
150	4.61	33.75	149	26.75	132.0	2.94	2.06	1470.
175	4.35	33.79	174	26.81	126.5	3.26	2.60	1470.
200	4.11	33.80	199	26.85	123.2	3.57	3.19	1469.
225	3.99	33.84	223	26.89	119.4	3.87	3.85	1469.
250	3.96	33.86	248	26.91	117.5	4.17	4.57	1469.
300	3.91	33.93	298	26.97	112.3	4.74	6.18	1470.
400	3.83	34.06	397	27.08	102.8	5.82	10.00	1471.
500	3.70	34.14	496	27.16	95.8	6.81	14.53	1473.
600	3.55	34.20	595	27.22	90.5	7.74	19.74	1474.
800	3.20	34.30	793	27.33	80.8	9.44	31.88	1476.
1000	2.86	34.38	990	27.43	72.7	10.98	45.92	1478.
1200	2.61	34.44	1188	27.50	66.4	12.37	61.50	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 15

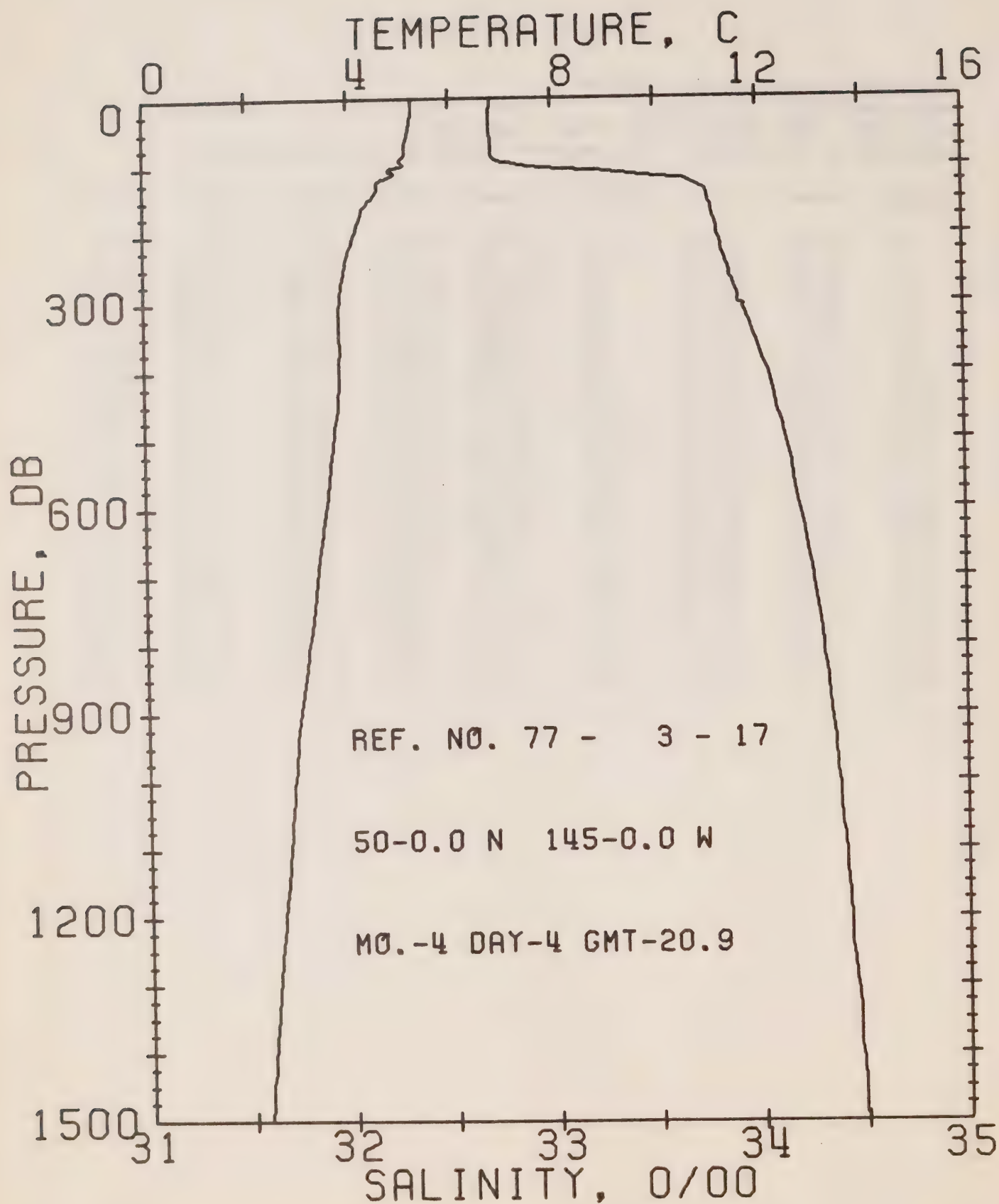
DATE 3/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.8

RESULTS OF STP CAST 156 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.50	32.70	0	25.82	218.5	0.0	0.0	1470.
10	5.50	32.70	10	25.82	218.8	0.22	0.01	1470.
20	5.50	32.70	20	25.82	218.9	0.44	0.04	1470.
30	5.47	32.69	30	25.82	219.5	0.66	0.10	1470.
50	5.20	32.70	50	25.86	215.9	1.09	0.28	1470.
75	5.21	32.71	75	25.86	215.6	1.63	0.62	1470.
100	4.89	32.88	99	26.03	199.5	2.16	1.10	1469.
125	4.70	33.73	124	26.73	134.2	2.55	1.53	1470.
150	4.49	33.76	149	26.78	129.6	2.88	1.99	1470.
175	4.22	33.79	174	26.83	124.9	3.20	2.52	1469.
200	4.05	33.82	199	26.87	121.2	3.50	3.11	1469.
225	4.00	33.85	223	26.90	118.3	3.80	3.76	1469.
250	3.95	33.88	248	26.93	116.0	4.09	4.47	1469.
300	3.91	33.94	298	26.98	111.5	4.66	6.06	1470.
400	3.85	34.05	397	27.07	103.3	5.73	9.85	1471.
500	3.68	34.15	496	27.17	94.9	6.72	14.41	1473.
600	3.52	34.22	595	27.24	89.0	7.64	19.55	1474.
800	3.14	34.33	793	27.36	77.9	9.31	31.44	1475.
1000	2.85	34.41	990	27.45	70.5	10.79	44.96	1478.
1200	2.61	34.43	1188	27.49	67.2	12.16	60.33	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 17

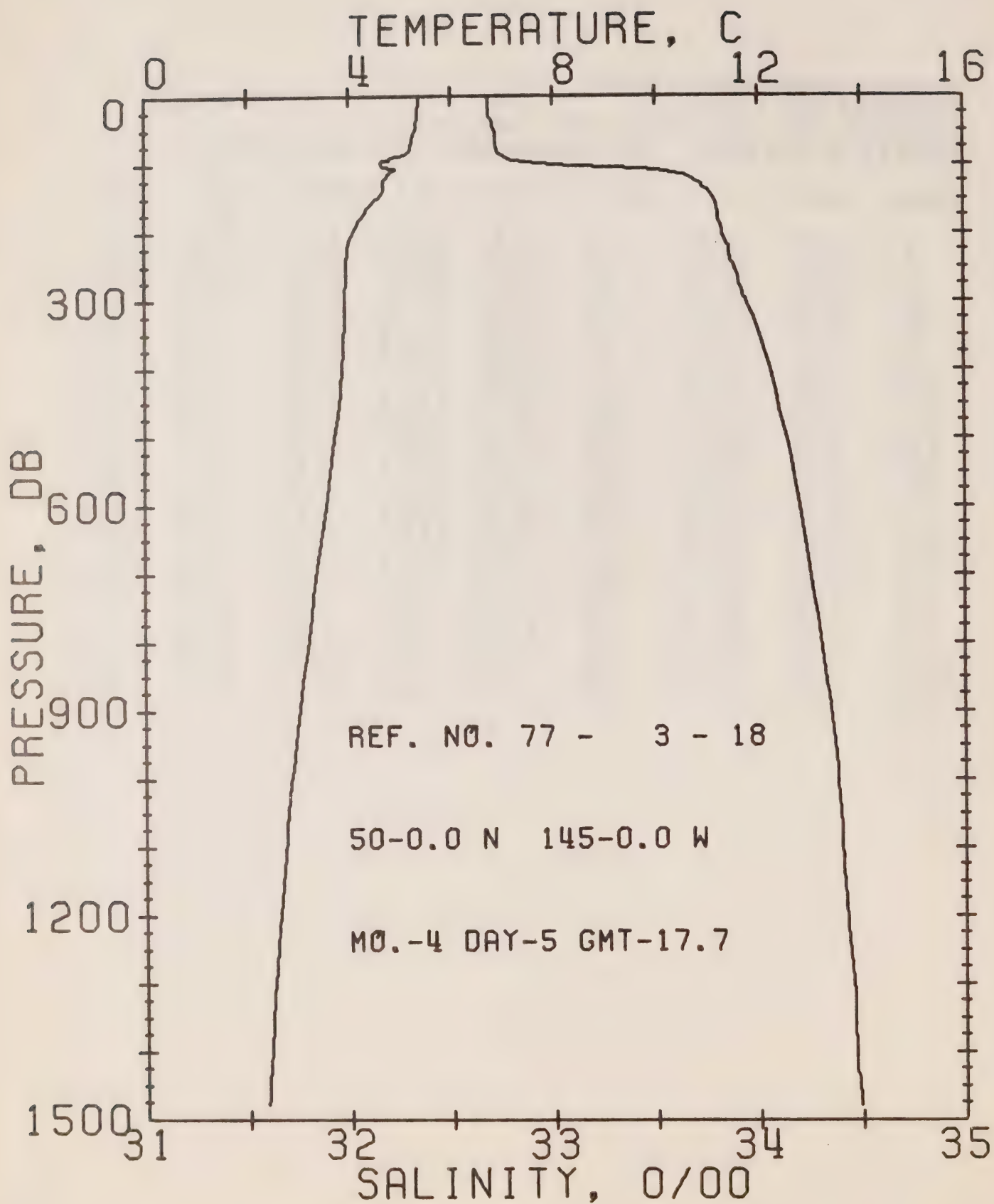
DATE 4/4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 20.9

RESULTS OF STP CAST 156 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.27	32.71	0	25.86	215.3	0.0	0.0	1469.
10	5.28	32.71	10	25.86	215.7	0.22	0.01	1469.
20	5.27	32.70	20	25.85	216.4	0.43	0.04	1469.
30	5.25	32.70	30	25.85	216.3	0.65	0.10	1469.
50	5.21	32.70	50	25.86	216.0	1.08	0.28	1470.
75	5.14	32.71	75	25.87	214.7	1.62	0.62	1470.
100	5.05	32.90	99	26.03	199.7	2.15	1.09	1470.
125	4.60	33.69	124	26.70	136.1	2.55	1.55	1470.
150	4.42	33.77	149	26.79	128.5	2.88	2.01	1469.
175	4.24	33.79	174	26.82	125.1	3.20	2.53	1469.
200	4.11	33.81	199	26.85	122.6	3.51	3.12	1469.
225	4.00	33.83	223	26.88	120.1	3.81	3.78	1469.
250	3.91	33.86	248	26.91	117.1	4.11	4.50	1469.
300	3.83	33.91	298	26.96	113.0	4.68	6.11	1470.
400	3.82	34.05	397	27.08	103.1	5.76	9.94	1471.
500	3.69	34.13	496	27.15	96.6	6.76	14.52	1473.
600	3.53	34.20	595	27.22	90.8	7.69	19.77	1474.
800	3.17	34.31	793	27.34	80.1	9.40	31.88	1476.
1000	2.85	34.38	990	27.43	72.7	10.92	45.84	1478.
1200	2.62	34.43	1188	27.49	67.6	12.33	61.57	1480.
1500	2.30	34.50	1483	27.57	60.3	14.24	87.83	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 18

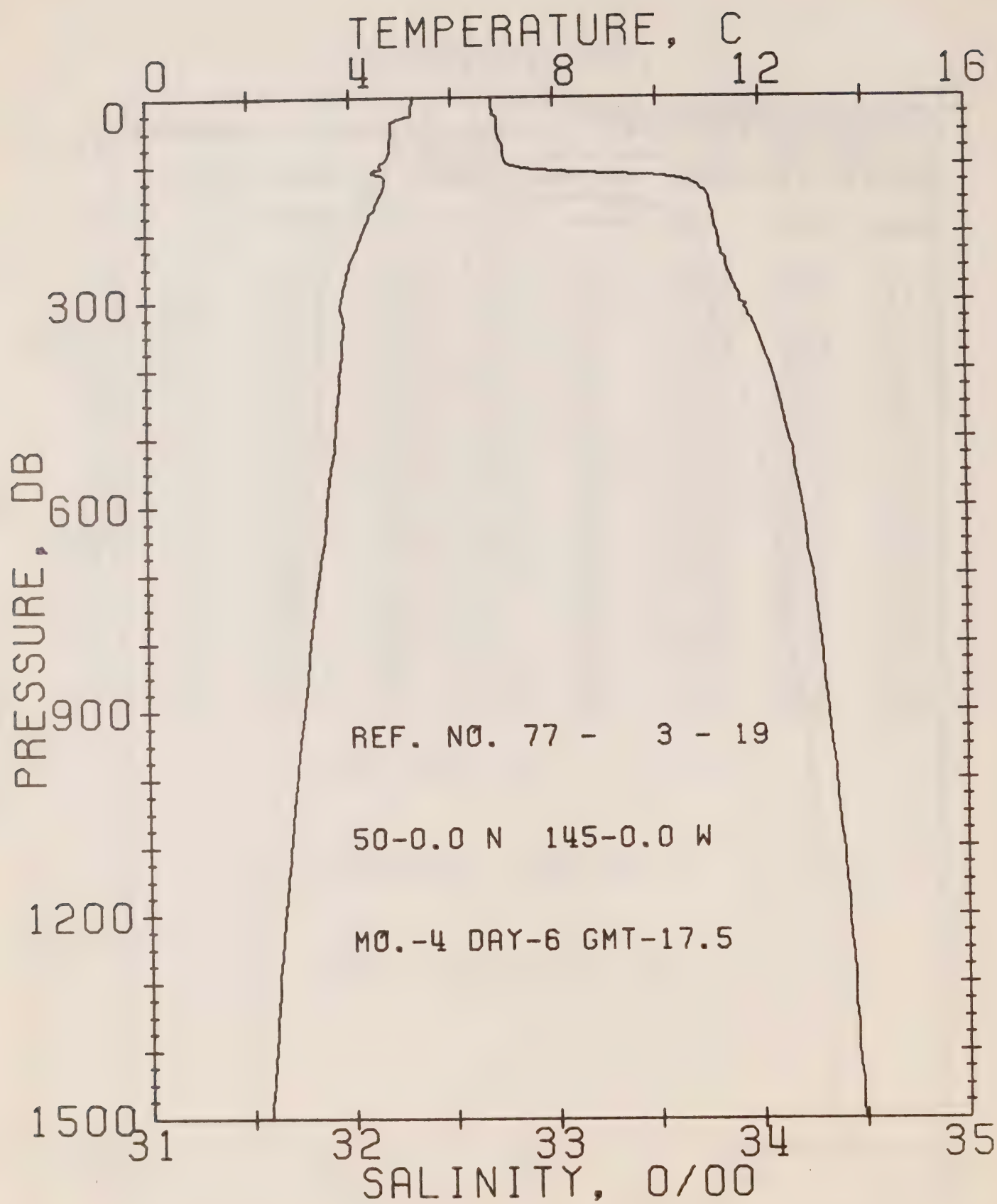
DATE 5/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.7

RESULTS OF STP CAST 136 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.38	32.69	0	25.83	218.0	0.0	0.0	1469.
10	5.38	32.69	10	25.83	218.3	0.22	0.01	1470.
20	5.37	32.69	20	25.83	218.3	0.44	0.04	1470.
30	5.37	32.69	30	25.83	218.4	0.65	0.10	1470.
50	5.31	32.71	50	25.85	216.1	1.09	0.28	1470.
75	5.22	32.72	75	25.87	214.9	1.63	0.62	1470.
100	4.64	32.97	99	26.13	190.2	2.15	1.08	1468.
125	4.69	33.70	124	26.71	135.8	2.53	1.51	1470.
150	4.56	33.78	149	26.79	128.6	2.86	1.98	1470.
175	4.27	33.81	174	26.84	124.0	3.17	2.50	1469.
200	4.06	33.83	199	26.87	120.6	3.48	3.08	1469.
225	3.97	33.86	223	26.91	117.5	3.77	3.73	1469.
250	3.95	33.89	248	26.93	115.6	4.07	4.43	1469.
300	3.92	33.94	298	26.98	111.7	4.63	6.02	1470.
400	3.88	34.06	397	27.08	103.1	5.70	9.83	1472.
500	3.71	34.14	496	27.15	96.2	6.70	14.40	1473.
600	3.54	34.20	595	27.22	90.7	7.64	19.63	1474.
800	3.18	34.31	793	27.34	80.3	9.34	31.77	1476.
1000	2.85	34.38	990	27.43	72.5	10.86	45.67	1478.
1200	2.61	34.43	1188	27.49	67.6	12.26	61.36	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 19

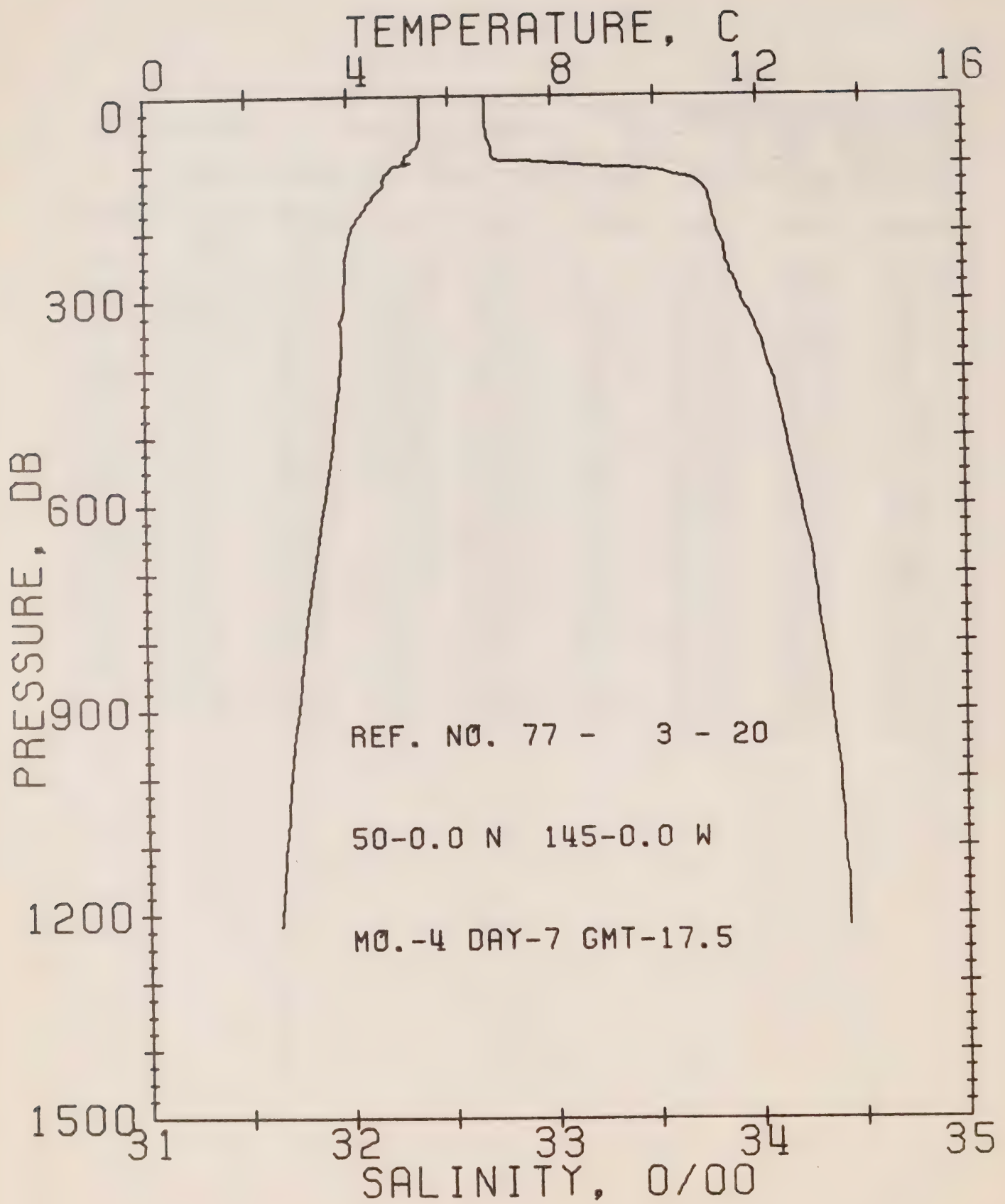
DATE 6/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 138 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. EN	SOUND
0	5.24	32.70	0	25.85	215.7	0.0	0.0	1469.
10	5.23	32.70	10	25.85	215.9	0.22	0.01	1469.
20	5.23	32.70	20	25.86	215.8	0.43	0.04	1469.
30	5.10	32.73	30	25.89	212.4	0.65	0.10	1469.
50	4.82	32.73	50	25.92	209.6	1.07	0.27	1468.
75	4.80	32.75	75	25.94	208.1	1.59	0.60	1468.
100	4.60	32.79	99	25.99	203.3	2.11	1.06	1468.
125	4.69	33.68	124	26.69	137.9	2.53	1.54	1470.
150	4.56	33.76	149	26.77	130.6	2.86	2.01	1470.
175	4.38	33.78	174	26.80	127.3	3.18	2.54	1470.
200	4.25	33.80	199	26.83	124.7	3.50	3.15	1470.
225	4.11	33.81	223	26.86	122.4	3.81	3.82	1469.
250	3.99	33.84	248	26.89	119.2	4.11	4.55	1469.
300	3.84	33.91	298	26.96	113.1	4.69	6.17	1470.
400	3.81	34.06	397	27.08	102.5	5.76	9.99	1471.
500	3.69	34.14	496	27.16	95.7	6.75	14.53	1473.
600	3.53	34.20	595	27.22	90.3	7.68	19.72	1474.
800	3.19	34.29	793	27.33	81.2	9.39	31.89	1476.
1000	2.89	34.36	990	27.41	74.2	10.95	46.14	1478.
1200	2.63	34.42	1188	27.48	68.3	12.37	62.05	1480.
1500	2.32	34.49	1483	27.56	61.2	14.31	88.66	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 20

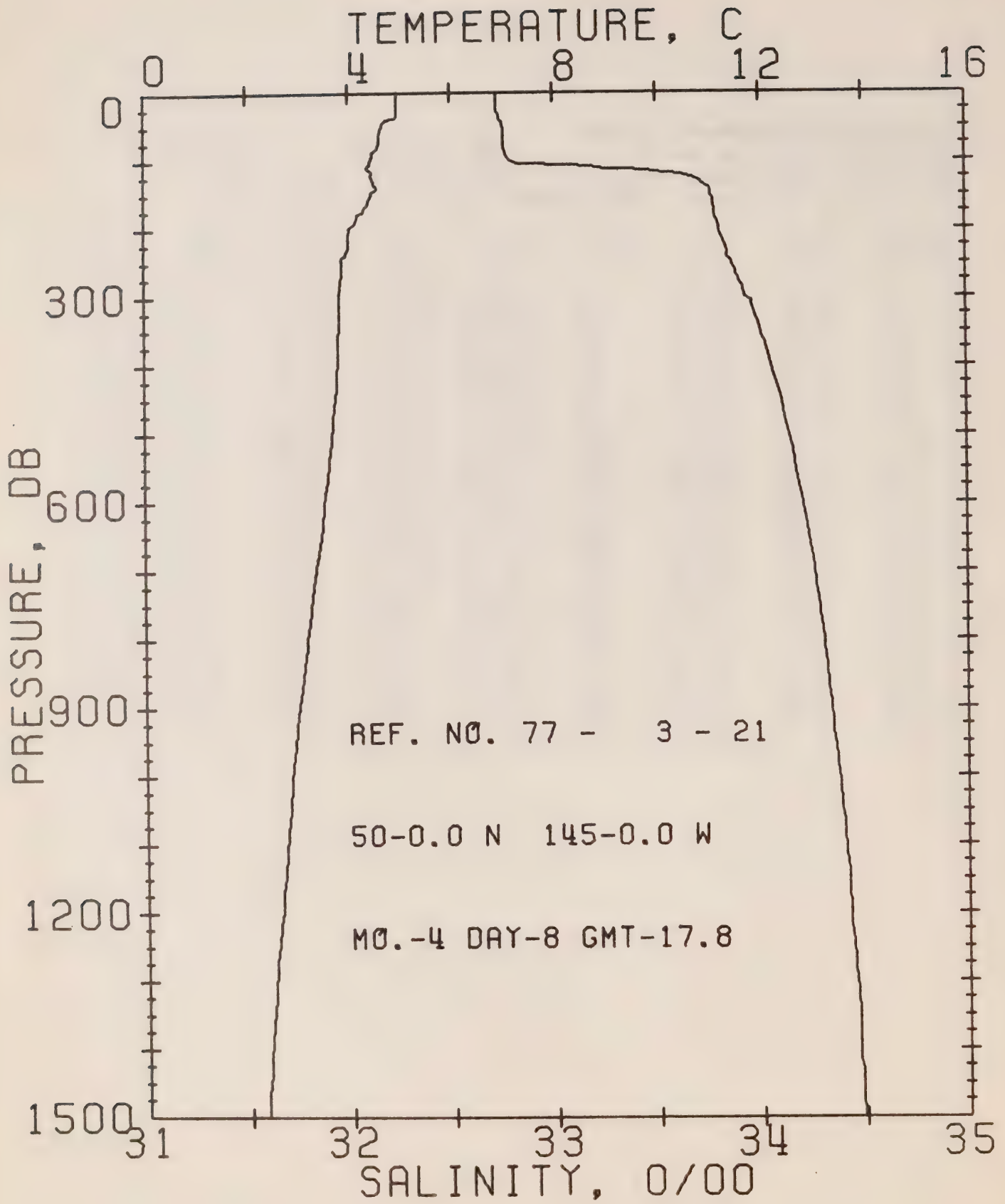
DATE 7/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 134 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.44	32.68	0	25.81	219.3	0.0	0.0	1470.
10	5.44	32.68	10	25.81	219.7	0.22	0.01	1470.
20	5.45	32.68	20	25.81	219.8	0.44	0.04	1470.
30	5.45	32.68	30	25.81	219.9	0.66	0.10	1470.
50	5.44	32.68	50	25.82	219.8	1.10	0.28	1471.
75	5.36	32.71	75	25.85	217.2	1.65	0.63	1471.
100	5.13	33.12	99	26.20	184.1	2.17	1.10	1471.
125	4.69	33.71	124	26.71	135.5	2.55	1.53	1470.
150	4.48	33.77	149	26.78	128.9	2.88	1.99	1470.
175	4.23	33.79	174	26.83	125.0	3.20	2.52	1469.
200	4.06	33.81	199	26.86	122.1	3.51	3.11	1469.
225	3.98	33.84	223	26.89	119.1	3.81	3.76	1469.
250	3.94	33.86	248	26.91	117.4	4.10	4.47	1469.
300	3.93	33.92	298	26.96	113.2	4.68	6.08	1470.
400	3.83	34.06	397	27.08	102.8	5.75	9.90	1471.
500	3.69	34.14	496	27.16	96.2	6.74	14.44	1473.
600	3.49	34.21	595	27.23	89.4	7.67	19.65	1473.
800	3.10	34.31	793	27.35	79.2	9.35	31.59	1475.
1000	2.80	34.39	990	27.44	71.2	10.85	45.33	1477.
1200	2.59	34.42	1188	27.48	67.9	12.24	60.89	1480.



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REFERENCE NO. 77- 3- 21

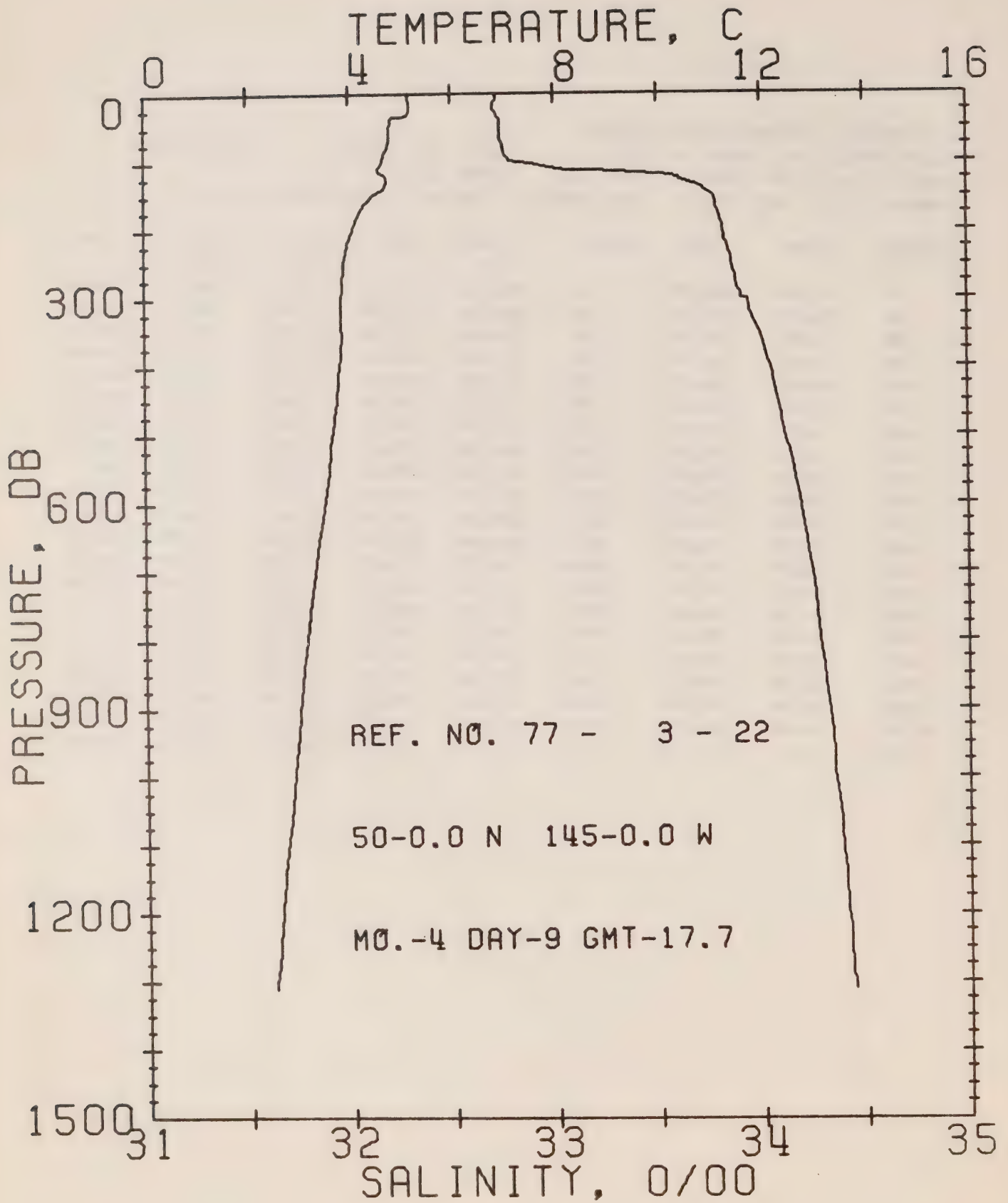
DATE 8/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.8

RESULTS OF STP CAST 171 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	4.97	32.73	0	25.91	210.5	0.0	0.0	1468.
10	4.97	32.73	10	25.91	210.9	0.21	0.01	1468.
20	4.96	32.73	20	25.91	210.9	0.42	0.04	1468.
30	4.97	32.73	30	25.91	210.8	0.63	0.10	1468.
50	4.66	32.75	50	25.96	206.3	1.05	0.27	1467.
75	4.61	32.76	75	25.97	205.4	1.56	0.59	1468.
100	4.45	32.80	99	26.02	201.1	2.07	1.05	1467.
125	4.48	33.68	124	26.72	135.1	2.49	1.52	1469.
150	4.46	33.77	149	26.78	128.8	2.81	1.98	1470.
175	4.26	33.79	174	26.82	125.3	3.13	2.50	1469.
200	4.03	33.81	199	26.86	121.6	3.44	3.09	1469.
225	3.99	33.84	223	26.89	119.6	3.74	3.75	1469.
250	3.87	33.87	248	26.93	116.0	4.04	4.46	1469.
300	3.81	33.93	298	26.98	111.2	4.61	6.05	1470.
400	3.78	34.06	397	27.08	102.3	5.67	9.83	1471.
500	3.66	34.14	496	27.16	95.5	6.65	14.35	1472.
600	3.50	34.21	595	27.23	89.5	7.58	19.53	1473.
800	3.16	34.31	793	27.34	79.8	9.27	31.57	1475.
1000	2.84	34.38	990	27.43	72.6	10.79	45.53	1477.
1200	2.62	34.43	1188	27.49	67.5	12.19	61.20	1480.
1500	2.31	34.49	1483	27.56	61.1	14.11	87.54	1484.



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REFERENCE NO. 77- 3- 22

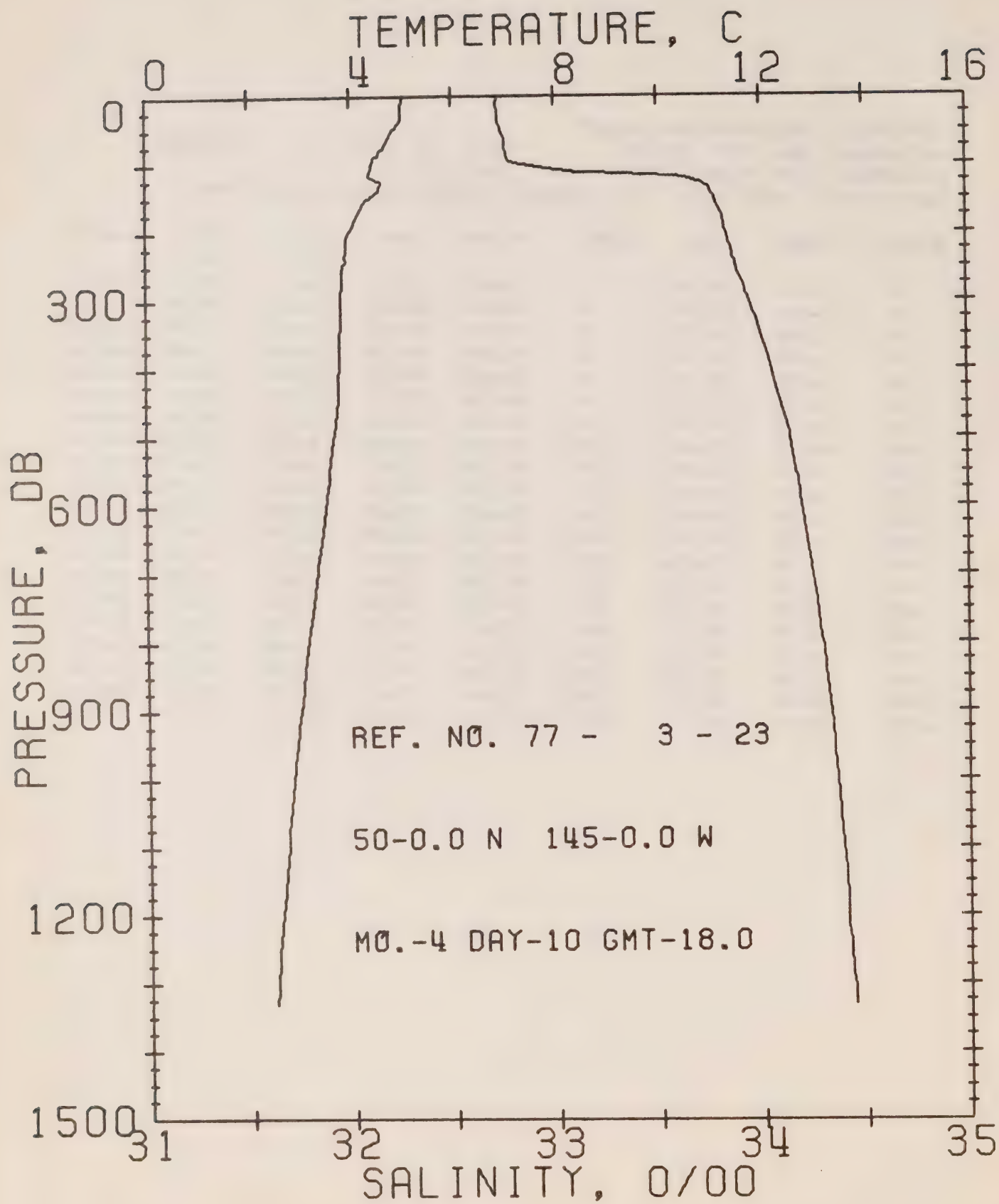
DATE 9/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.7

RESULTS OF STP CAST 133 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.18	32.72	0	25.87	213.5	0.0	0.0	1469.
10	5.19	32.72	10	25.87	213.9	0.21	0.01	1469.
20	5.19	32.71	20	25.87	214.7	0.43	0.04	1469.
30	5.18	32.72	30	25.87	214.0	0.64	0.10	1469.
50	4.81	32.74	50	25.93	208.7	1.06	0.27	1468.
75	4.78	32.75	75	25.94	207.9	1.58	0.60	1468.
100	4.64	32.83	99	26.02	200.4	2.10	1.06	1468.
125	4.75	33.61	124	26.63	143.5	2.53	1.55	1470.
150	4.47	33.77	149	26.79	128.7	2.87	2.02	1470.
175	4.19	33.80	174	26.84	123.9	3.18	2.54	1469.
200	4.07	33.82	199	26.87	121.4	3.49	3.13	1469.
225	3.96	33.84	223	26.90	118.6	3.79	3.78	1469.
250	3.90	33.86	248	26.92	116.8	4.08	4.49	1469.
300	3.85	33.91	298	26.96	113.2	4.66	6.10	1470.
400	3.81	34.05	397	27.07	103.4	5.73	9.93	1471.
500	3.66	34.12	496	27.14	97.2	6.74	14.53	1472.
600	3.50	34.19	595	27.22	90.8	7.67	19.78	1473.
800	3.14	34.28	793	27.33	81.5	9.39	31.98	1475.
1000	2.87	34.35	990	27.41	74.7	10.94	46.20	1478.
1200	2.61	34.41	1188	27.48	68.7	12.37	62.19	1480.



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REFERENCE NO. 77- 3- 23

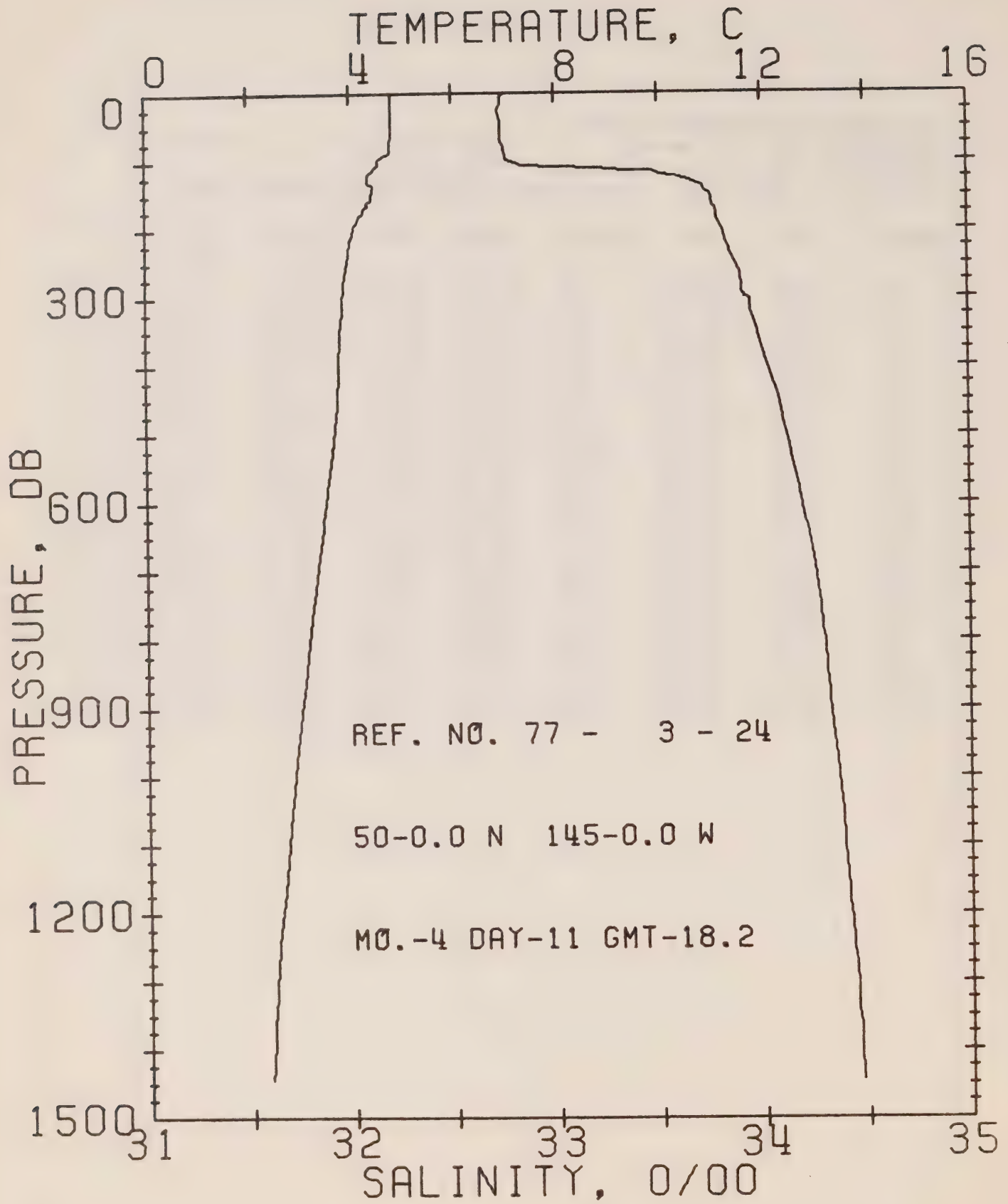
DATE 10/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.0

RESULTS OF STP CAST 119 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.03	32.73	0	25.90	211.2	0.0	0.0	1468.
10	5.02	32.72	10	25.89	212.0	0.21	0.01	1468.
20	5.01	32.73	20	25.90	211.8	0.42	0.04	1468.
30	5.01	32.73	30	25.90	211.5	0.64	0.10	1469.
50	4.85	32.74	50	25.93	209.1	1.06	0.27	1468.
75	4.65	32.76	75	25.96	205.9	1.57	0.60	1468.
100	4.44	32.83	99	26.04	198.7	2.08	1.05	1467.
125	4.57	33.69	124	26.71	135.6	2.50	1.53	1470.
150	4.36	33.78	149	26.80	126.9	2.83	1.99	1469.
175	4.14	33.82	174	26.86	121.8	3.14	2.50	1469.
200	3.97	33.83	199	26.89	119.3	3.44	3.08	1468.
225	3.91	33.86	223	26.91	117.0	3.74	3.72	1469.
250	3.86	33.88	248	26.94	114.8	4.03	4.42	1469.
300	3.81	33.95	298	27.00	109.8	4.59	5.99	1470.
400	3.78	34.05	397	27.08	102.6	5.65	9.78	1471.
500	3.66	34.14	496	27.16	95.6	6.64	14.31	1472.
600	3.50	34.20	595	27.22	90.4	7.57	19.51	1473.
800	3.14	34.29	793	27.33	80.8	9.28	31.68	1475.
1000	2.83	34.36	990	27.42	73.6	10.82	45.77	1477.
1200	2.58	34.41	1188	27.48	68.5	12.24	61.64	1480.



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REFERENCE NO. 77- 3- 24

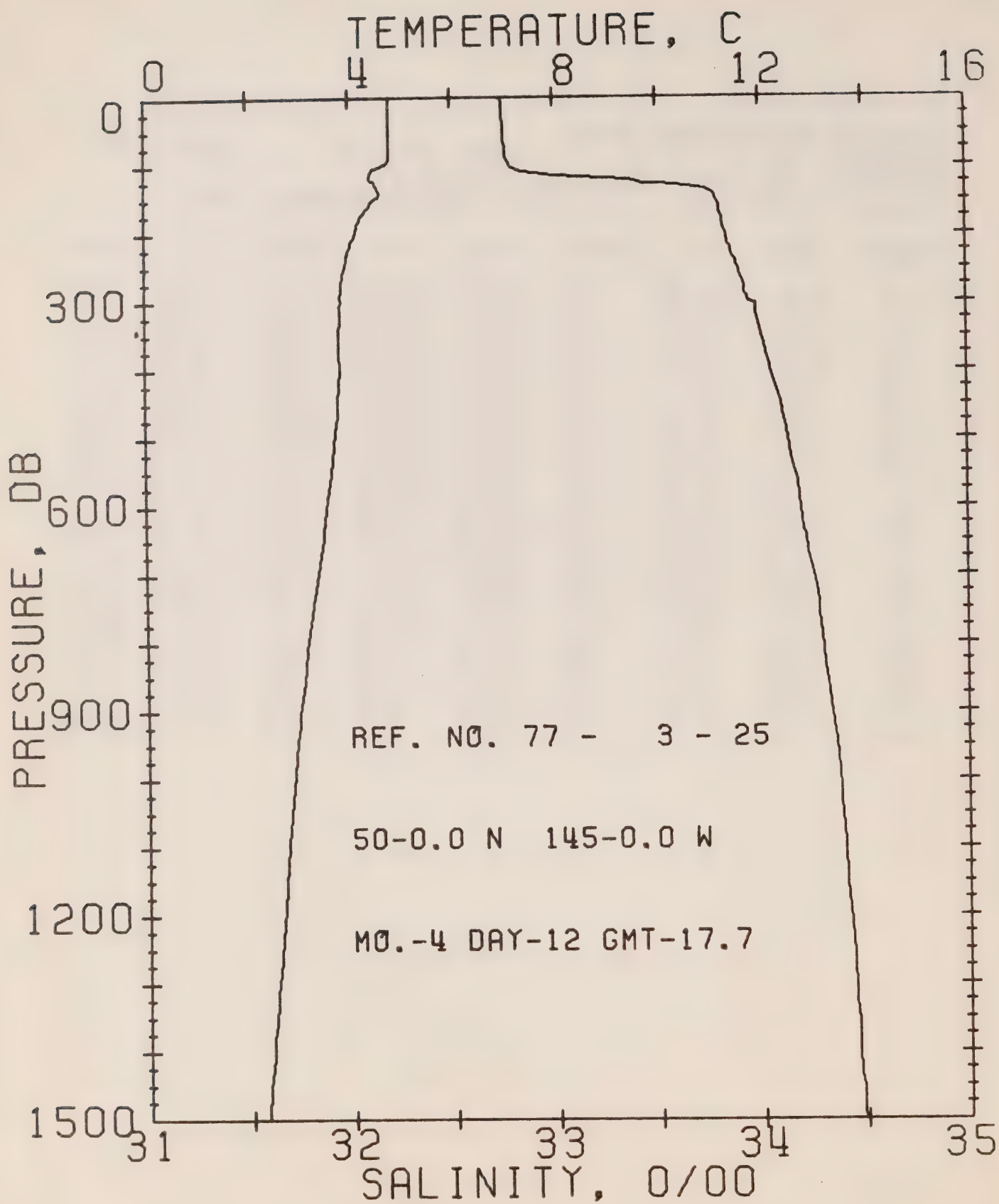
DATE 11/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.2

RESULTS OF STP CAST 116 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	4.81	32.75	0	25.94	207.4	0.0	0.0	1467.
10	4.83	32.74	10	25.93	208.6	0.21	0.01	1467.
20	4.83	32.74	20	25.93	208.9	0.42	0.04	1468.
30	4.84	32.73	30	25.92	209.6	0.63	0.10	1468.
50	4.83	32.74	50	25.93	208.9	1.04	0.27	1468.
75	4.81	32.74	75	25.94	208.7	1.57	0.60	1468.
100	4.56	32.78	99	25.99	203.6	2.08	1.06	1468.
125	4.34	33.61	124	26.67	139.0	2.51	1.55	1468.
150	4.44	33.75	149	26.77	129.8	2.84	2.01	1469.
175	4.25	33.79	174	26.82	125.5	3.16	2.54	1469.
200	4.07	33.81	199	26.86	122.1	3.47	3.13	1469.
225	3.99	33.84	223	26.89	119.2	3.77	3.78	1469.
250	3.93	33.88	248	26.92	116.1	4.07	4.50	1469.
300	3.84	33.92	298	26.97	112.3	4.64	6.09	1470.
400	3.77	34.03	397	27.06	104.2	5.72	9.93	1471.
500	3.67	34.12	496	27.15	97.1	6.72	14.54	1472.
600	3.49	34.19	595	27.22	90.8	7.66	19.79	1473.
800	3.16	34.30	793	27.34	80.6	9.36	31.90	1475.
1000	2.85	34.36	990	27.41	73.9	10.91	46.08	1478.
1200	2.59	34.42	1188	27.48	68.1	12.33	61.94	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 25

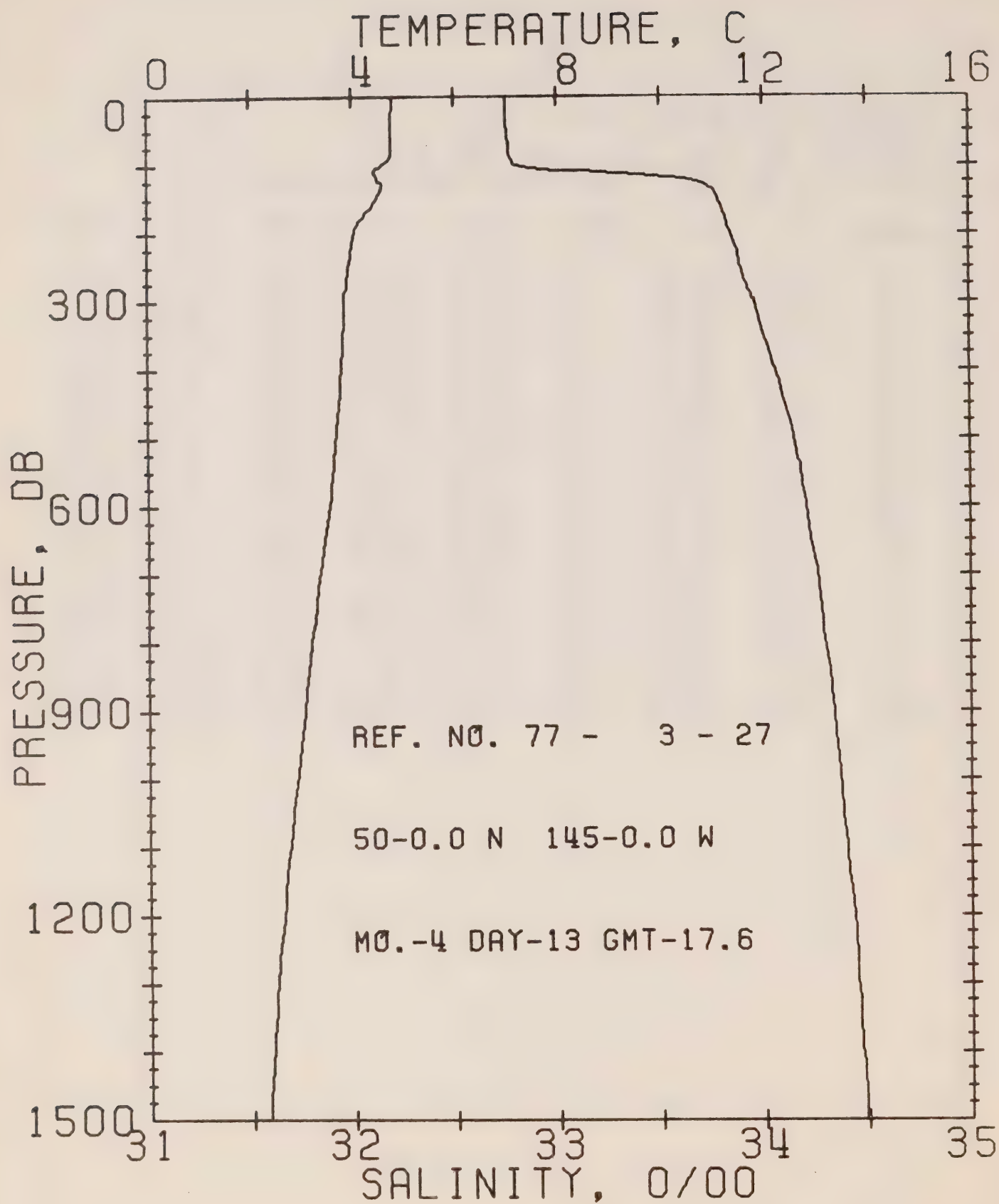
DATE 12/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.7

RESULTS OF STP CAST 124 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	4.80	32.74	0	25.93	208.0	0.0	0.0	1467.
10	4.80	32.75	10	25.94	207.6	0.21	0.01	1467.
20	4.79	32.75	20	25.94	207.6	0.42	0.04	1467.
30	4.79	32.75	30	25.94	207.5	0.62	0.10	1468.
50	4.79	32.76	50	25.95	207.0	1.04	0.26	1468.
75	4.79	32.77	75	25.96	206.6	1.55	0.59	1468.
100	4.68	32.79	99	25.98	204.3	2.07	1.05	1468.
125	4.51	33.43	124	26.51	154.5	2.53	1.58	1469.
150	4.51	33.79	149	26.80	127.5	2.86	2.05	1470.
175	4.23	33.82	174	26.85	123.0	3.18	2.56	1469.
200	4.11	33.84	199	26.88	120.4	3.48	3.15	1469.
225	3.98	33.86	223	26.91	117.7	3.78	3.79	1469.
250	3.90	33.89	248	26.94	114.4	4.07	4.49	1469.
300	3.84	33.95	298	26.99	110.1	4.63	6.06	1470.
400	3.81	34.05	397	27.08	103.0	5.69	9.83	1471.
500	3.70	34.14	496	27.15	96.3	6.68	14.38	1473.
600	3.53	34.19	595	27.22	90.9	7.62	19.61	1474.
800	3.15	34.30	793	27.34	80.6	9.32	31.77	1475.
1000	2.84	34.38	990	27.43	72.6	10.85	45.76	1477.
1200	2.62	34.42	1188	27.48	67.9	12.26	61.52	1480.
1500	2.30	34.49	1483	27.56	61.0	14.19	88.08	1484.



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REFERENCE NO. 77- 3- 27

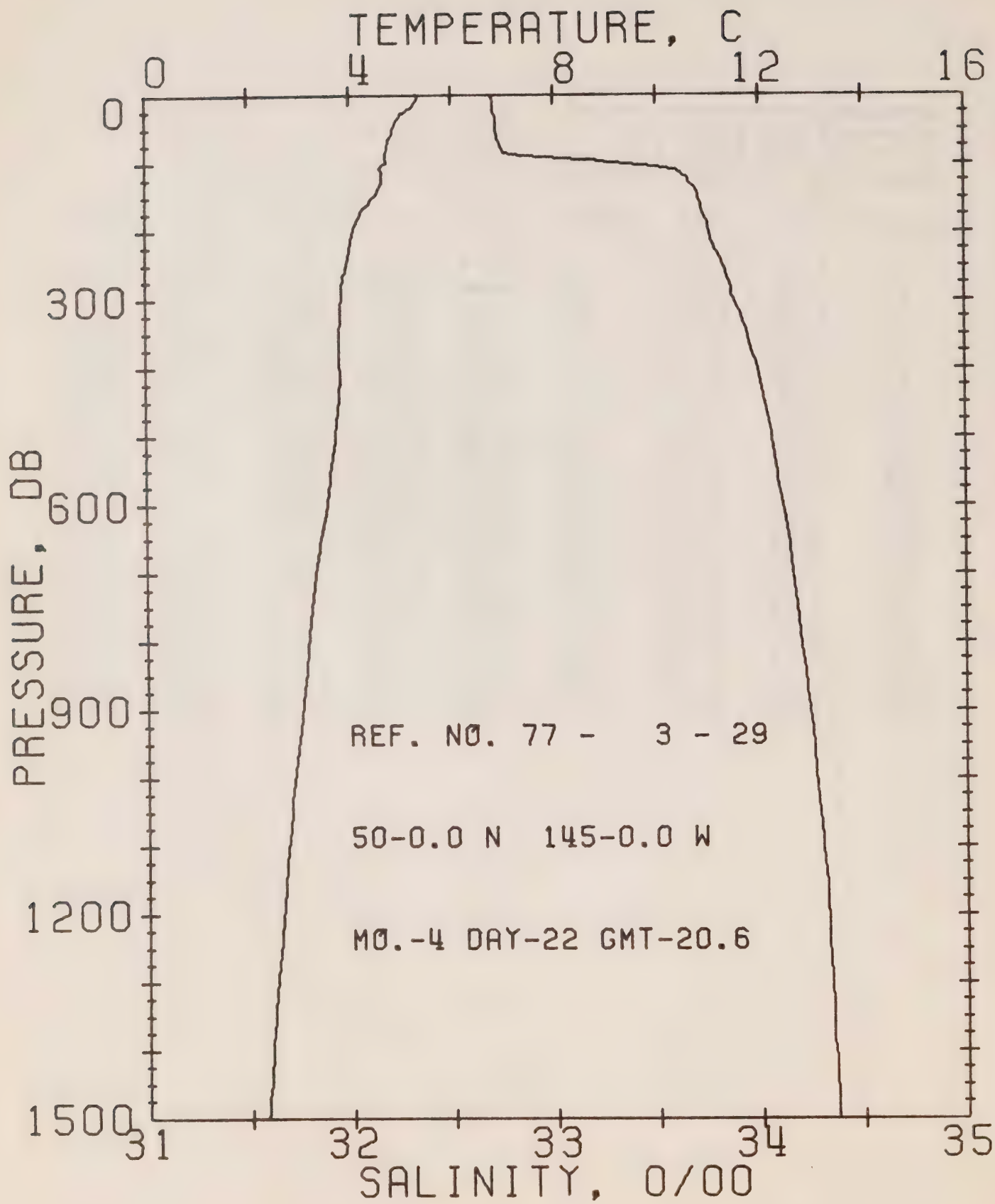
DATE 13/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.6

RESULTS OF STP CAST 114 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	4.79	32.75	0	25.94	207.2	0.0	0.0	1467.
10	4.79	32.75	10	25.94	207.5	0.21	0.01	1467.
20	4.79	32.75	20	25.94	207.5	0.41	0.04	1467.
30	4.78	32.75	30	25.94	207.5	0.62	0.10	1468.
50	4.78	32.76	50	25.95	207.3	1.04	0.26	1468.
75	4.78	32.77	75	25.96	206.4	1.55	0.59	1468.
100	4.61	32.79	99	26.00	203.1	2.07	1.05	1468.
125	4.56	33.69	124	26.71	135.5	2.49	1.53	1469.
150	4.48	33.78	149	26.80	127.8	2.81	1.98	1470.
175	4.22	33.81	174	26.85	123.1	3.13	2.50	1469.
200	4.04	33.85	199	26.89	119.0	3.43	3.08	1469.
225	3.98	33.87	223	26.92	116.5	3.72	3.72	1469.
250	3.93	33.89	248	26.94	114.8	4.01	4.42	1469.
300	3.83	33.96	298	27.00	109.2	4.57	5.99	1470.
400	3.78	34.06	397	27.08	102.1	5.63	9.77	1471.
500	3.67	34.15	496	27.17	95.2	6.62	14.28	1473.
600	3.53	34.21	595	27.23	89.9	7.54	19.45	1474.
800	3.18	34.30	793	27.33	80.8	9.24	31.55	1476.
1000	2.88	34.37	990	27.42	73.5	10.78	45.65	1478.
1200	2.61	34.43	1188	27.49	66.9	12.19	61.42	1480.
1500	2.32	34.49	1483	27.56	61.2	14.10	87.68	1484.



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REFERENCE NO. 77- 3- 29

DATE 22/ 4/77

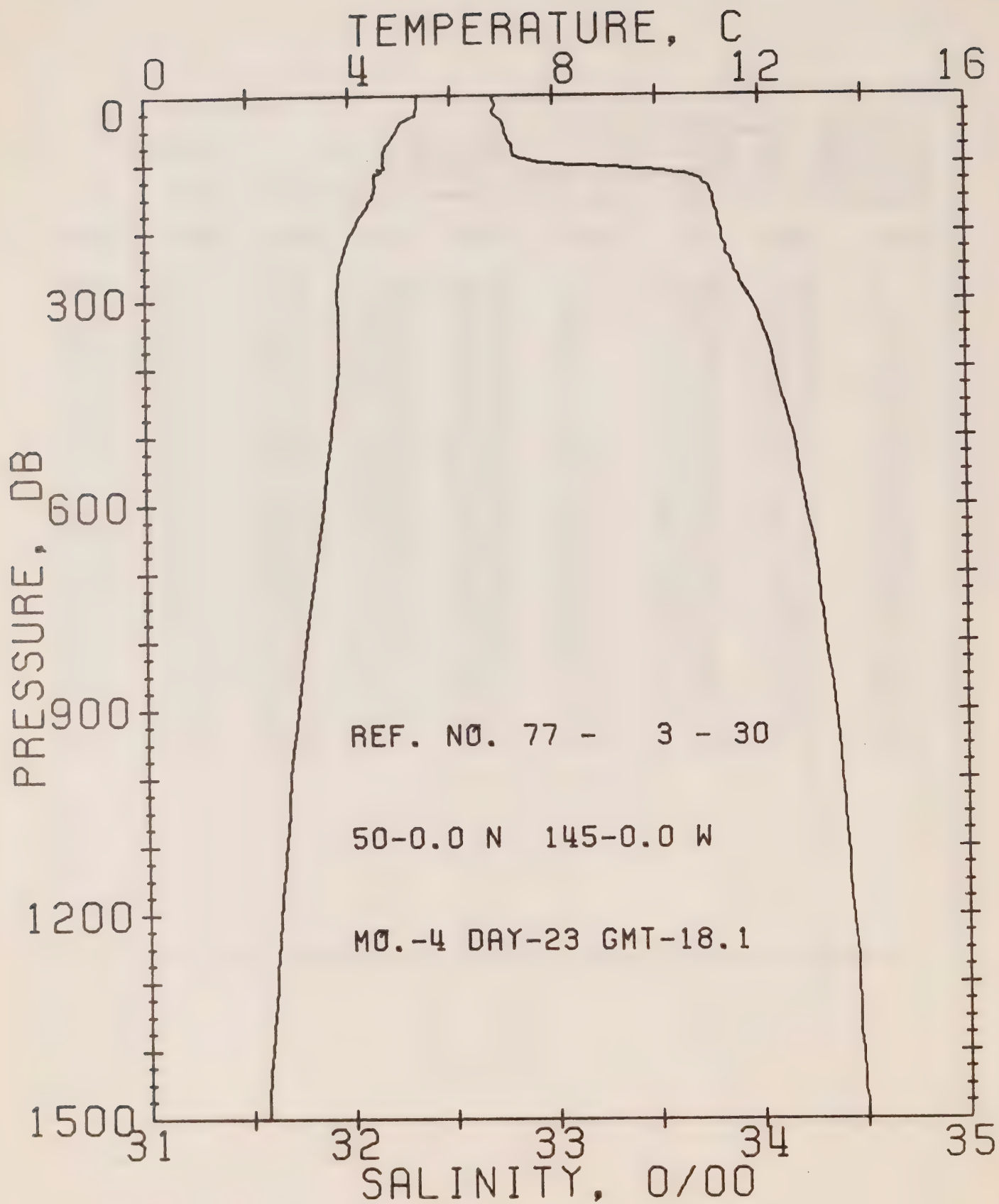
STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 20.6

RESULTS OF STP CAST 126 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.31	32.70	0	25.84	216.4	0.0	0.0	1469.
10	5.32	32.71	10	25.85	216.2	0.22	0.01	1469.
20	5.20	32.71	20	25.87	214.9	0.43	0.04	1469.
30	5.00	32.72	30	25.89	212.4	0.65	0.10	1468.
50	4.86	32.72	50	25.91	210.8	1.07	0.27	1468.
75	4.74	32.74	75	25.94	208.2	1.59	0.60	1468.
100	4.71	33.35	99	26.43	162.3	2.08	1.03	1469.
125	4.64	33.66	124	26.68	138.6	2.44	1.45	1470.
150	4.46	33.71	149	26.74	133.2	2.78	1.92	1470.
175	4.19	33.73	174	26.79	128.8	3.10	2.46	1469.
200	4.06	33.76	199	26.82	126.0	3.42	3.07	1469.
225	4.00	33.79	223	26.85	123.1	3.73	3.74	1469.
250	3.93	33.83	248	26.89	119.7	4.04	4.48	1469.
300	3.84	33.88	298	26.94	115.3	4.62	6.12	1470.
400	3.81	33.99	397	27.03	107.4	5.73	10.07	1471.
500	3.70	34.06	496	27.09	102.0	6.78	14.86	1473.
600	3.53	34.11	595	27.15	96.9	7.77	20.44	1473.
800	3.16	34.20	793	27.25	88.2	9.61	33.53	1475.
1000	2.86	34.27	990	27.34	80.6	11.30	48.94	1477.
1200	2.62	34.33	1188	27.41	75.2	12.85	66.33	1480.
1500	2.30	34.37	1484	27.47	69.8	15.02	96.18	1483.

* Note: Salinities from 300 - 1500 db are suspected to be too low.



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REFERENCE NO. 77- 3- 30

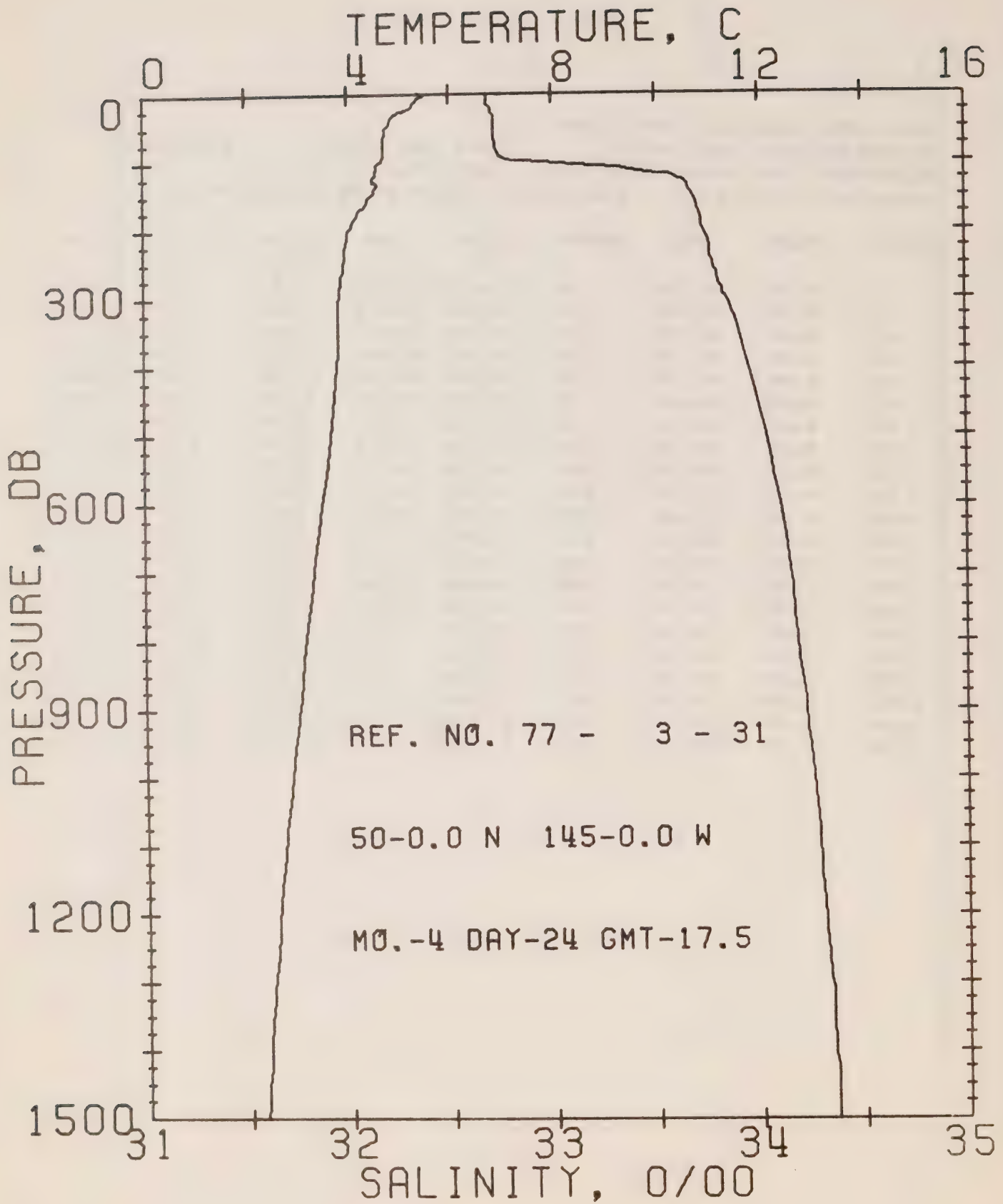
DATE 23/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.1

RESULTS OF STP CAST 146 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.35	32.72	0	25.86	215.3	0.0	0.0	1469.
10	5.35	32.72	10	25.85	216.0	0.22	0.01	1470.
20	5.34	32.71	20	25.85	216.1	0.43	0.04	1470.
30	5.30	32.73	30	25.87	214.6	0.65	0.10	1470.
50	4.96	32.77	50	25.94	208.2	1.07	0.27	1469.
75	4.73	32.80	75	25.99	203.6	1.58	0.60	1468.
100	4.67	33.01	99	26.16	187.3	2.09	1.04	1469.
125	4.52	33.73	124	26.74	132.4	2.46	1.47	1469.
150	4.45	33.78	145	26.79	127.9	2.78	1.93	1470.
175	4.23	33.80	174	26.83	124.3	3.10	2.45	1469.
200	4.05	33.82	199	26.87	121.1	3.41	3.04	1469.
225	3.91	33.84	223	26.90	118.4	3.71	3.69	1469.
250	3.82	33.87	248	26.93	115.2	4.00	4.39	1469.
300	3.77	33.93	298	26.98	110.8	4.56	5.97	1469.
400	3.78	34.08	397	27.10	100.9	5.61	9.69	1471.
500	3.62	34.16	496	27.18	93.4	6.58	14.14	1472.
600	3.46	34.22	595	27.24	88.2	7.49	19.23	1473.
800	3.10	34.32	793	27.36	78.6	9.15	31.05	1475.
1000	2.78	34.39	990	27.44	70.9	10.64	44.67	1477.
1200	2.57	34.44	1188	27.50	66.3	12.01	60.07	1480.
1500	2.27	34.50	1483	27.57	59.9	13.90	86.00	1483.



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REFERENCE NO. 77- 3- 30

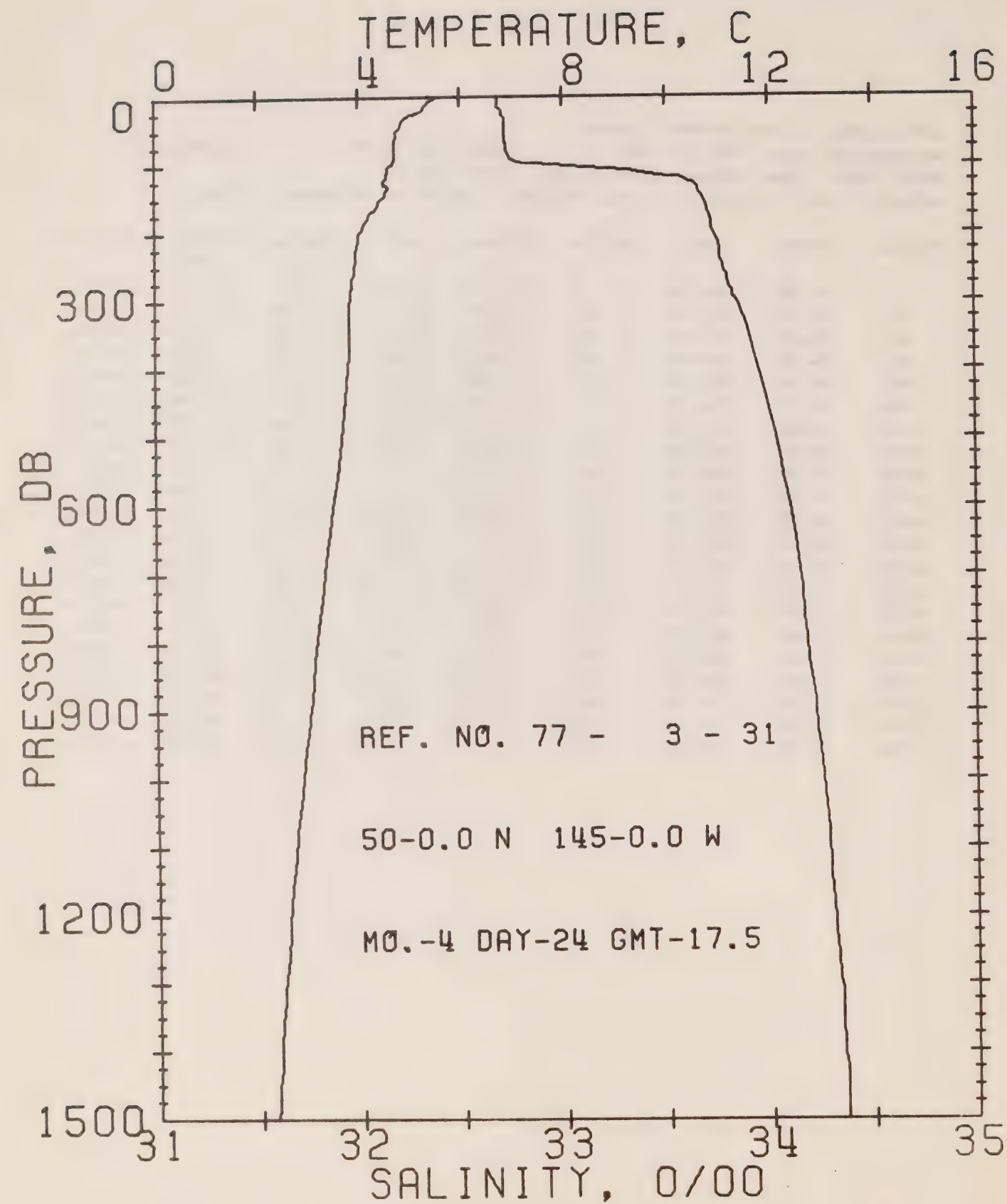
DATE 23/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.1

RESULTS OF STP CAST 146 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.35	32.72	0	25.86	215.3	0.0	0.0	1469.
10	5.35	32.72	10	25.85	216.0	0.22	0.01	1470.
20	5.34	32.71	20	25.85	216.1	0.43	0.04	1470.
30	5.30	32.73	30	25.87	214.6	0.65	0.10	1470.
50	4.96	32.77	50	25.94	208.2	1.07	0.27	1469.
75	4.73	32.80	75	25.99	203.6	1.58	0.60	1468.
100	4.67	33.01	99	26.16	187.3	2.09	1.04	1469.
125	4.52	33.73	124	26.74	132.4	2.46	1.47	1469.
150	4.45	33.78	149	26.79	127.9	2.78	1.93	1470.
175	4.23	33.80	174	26.83	124.3	3.10	2.45	1469.
200	4.05	33.82	199	26.87	121.1	3.41	3.04	1469.
225	3.91	33.84	223	26.90	118.4	3.71	3.69	1469.
250	3.82	33.87	248	26.93	115.2	4.00	4.39	1469.
300	3.77	33.93	298	26.98	110.8	4.56	5.97	1469.
400	3.78	34.08	397	27.10	100.9	5.61	9.69	1471.
500	3.62	34.16	496	27.18	93.4	6.58	14.14	1472.
600	3.46	34.22	595	27.24	88.2	7.49	19.23	1473.
800	3.10	34.32	793	27.36	78.6	9.15	31.05	1475.
1000	2.78	34.39	990	27.44	70.9	10.64	44.67	1477.
1200	2.57	34.44	1188	27.50	66.3	12.01	60.07	1480.
1500	2.27	34.50	1483	27.57	59.9	13.90	86.00	1483.



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REFERENCE NO. 77- 3- 31

DATE 24/ 4/77

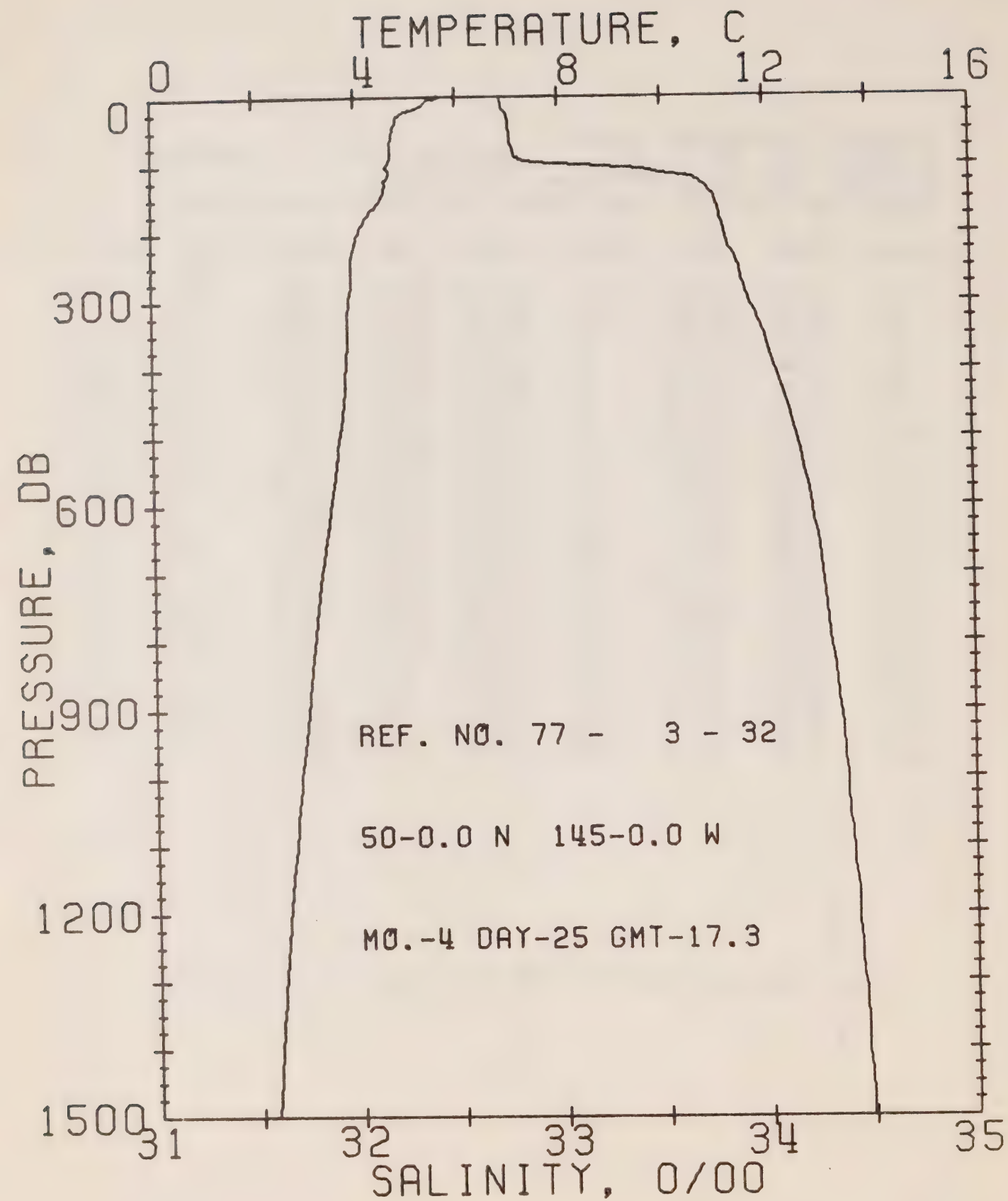
STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 141 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA C	POT. EN	SOUND
0	5.40	32.69	0	25.83	218.2	0.0	0.0	1470.
10	5.37	32.69	10	25.83	218.1	0.22	0.01	1470.
20	5.26	32.70	20	25.85	216.5	0.44	0.04	1469.
30	4.96	32.71	30	25.89	212.2	0.65	0.10	1468.
50	4.74	32.72	50	25.92	209.6	1.07	0.27	1468.
75	4.72	32.73	75	25.93	208.8	1.60	0.60	1468.
100	4.67	32.95	99	26.11	192.0	2.11	1.07	1469.
125	4.50	33.62	124	26.66	140.4	2.52	1.52	1469.
150	4.46	33.68	149	26.72	135.2	2.86	2.01	1469.
175	4.21	33.72	174	26.77	130.2	3.19	2.55	1469.
200	4.03	33.73	199	26.80	127.3	3.51	3.17	1469.
225	3.96	33.77	223	26.84	124.1	3.83	3.85	1469.
250	3.93	33.78	248	26.85	123.2	4.14	4.60	1469.
300	3.82	33.84	298	26.91	117.8	4.74	6.29	1469.
400	3.78	33.95	397	27.00	110.1	5.87	10.33	1471.
500	3.64	34.03	496	27.08	103.4	6.94	15.22	1472.
600	3.48	34.10	595	27.15	97.4	7.95	20.85	1473.
800	3.14	34.18	793	27.24	89.0	9.80	34.05	1475.
1000	2.85	34.25	990	27.33	81.9	11.51	49.69	1477.
1200	2.58	34.31	1188	27.39	76.2	13.08	67.34	1480.
1500	2.30	34.36	1484	27.46	70.6	15.27	97.32	1483.

* Note: Salinities from 300 - 1500 db are suspected to be too low.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 32

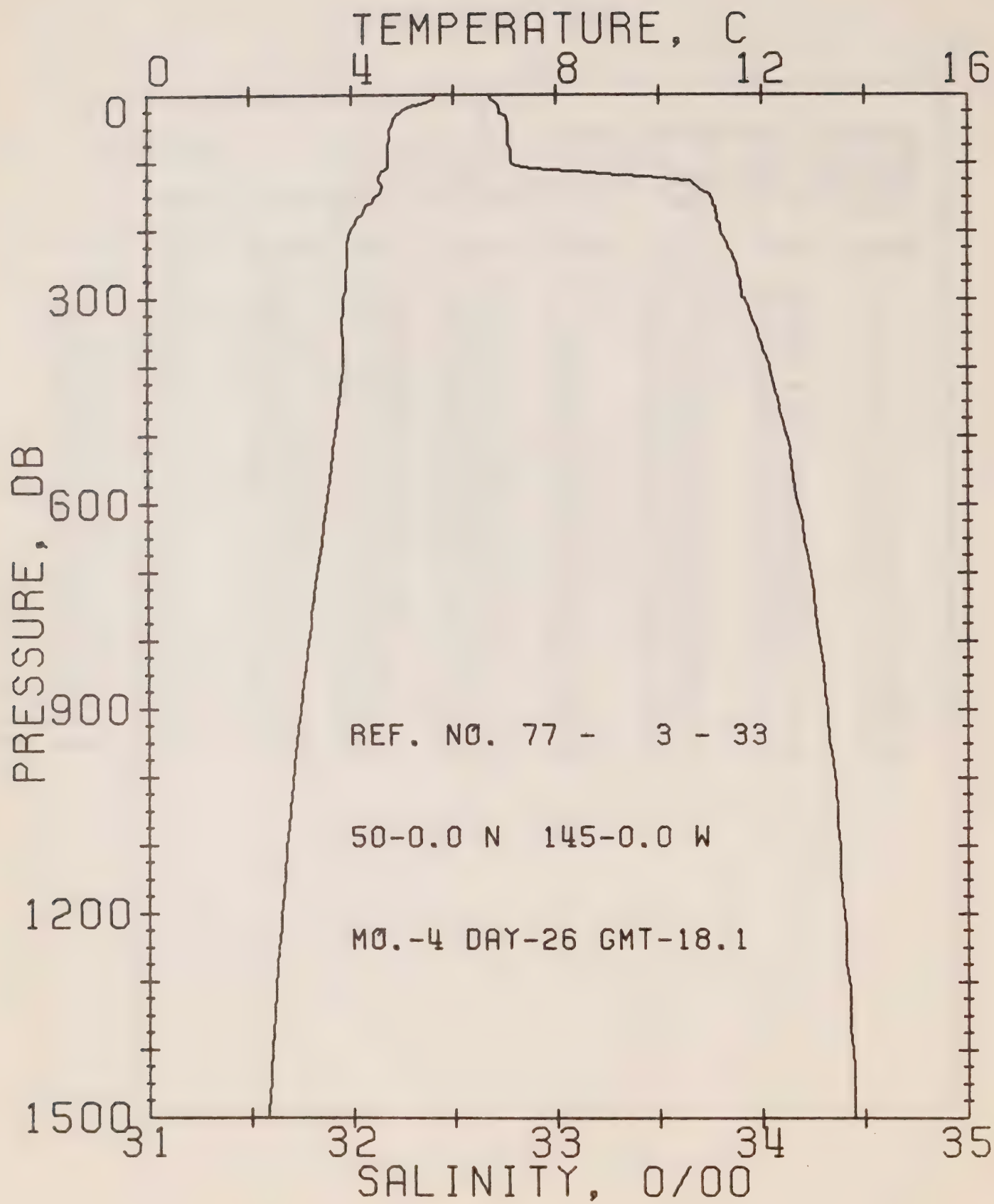
DATE 25/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 130 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. EN	SOUND
0	5.66	32.72	0	25.82	218.8	0.0	0.0	1471.
10	5.40	32.72	10	25.85	215.9	0.22	0.01	1470.
20	5.16	32.73	20	25.89	212.7	0.43	0.04	1469.
30	4.85	32.75	30	25.93	208.3	0.64	0.10	1468.
50	4.77	32.76	50	25.96	206.6	1.06	0.27	1468.
75	4.71	32.78	75	25.97	205.3	1.57	0.59	1468.
100	4.64	33.12	99	26.25	178.8	2.07	1.04	1469.
125	4.60	33.69	124	26.70	136.2	2.45	1.47	1470.
150	4.52	33.76	149	26.77	130.1	2.78	1.94	1470.
175	4.24	33.79	174	26.82	125.1	3.10	2.47	1469.
200	4.06	33.81	199	26.86	121.9	3.41	3.06	1469.
225	3.96	33.84	223	26.89	119.2	3.71	3.71	1469.
250	3.93	33.88	248	26.93	116.1	4.01	4.42	1469.
300	3.86	33.92	298	26.97	112.5	4.58	6.02	1470.
400	3.81	34.05	397	27.07	103.2	5.65	9.84	1471.
500	3.67	34.15	496	27.17	95.2	6.64	14.38	1472.
600	3.49	34.22	595	27.24	88.7	7.55	19.51	1473.
800	3.12	34.31	793	27.35	79.6	9.24	31.43	1475.
1000	2.84	34.38	990	27.43	72.3	10.75	45.30	1477.
1200	2.58	34.43	1188	27.49	67.0	12.15	60.92	1480.
1500	2.29	34.49	1483	27.56	60.9	14.06	87.17	1484.



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REFERENCE NO. 77- 3- 33

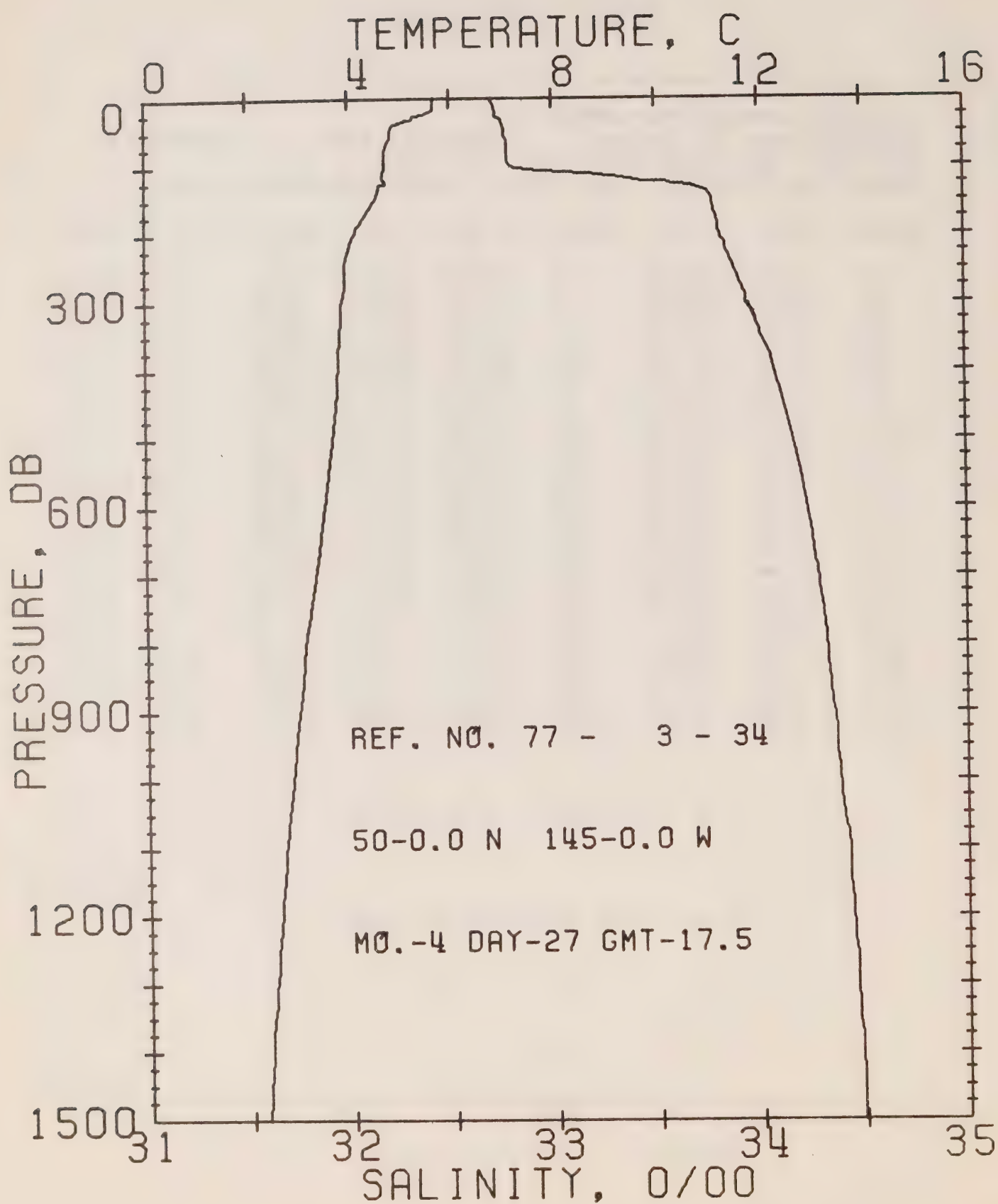
DATE 26/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.1

RESULTS OF STP CAST 156 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.62	32.68	0	25.79	221.3	0.0	0.0	1470.
10	5.56	32.70	10	25.81	219.8	0.22	0.01	1470.
20	5.07	32.72	20	25.89	212.8	0.44	0.04	1469.
30	4.89	32.75	30	25.93	208.7	0.65	0.10	1468.
50	4.76	32.77	50	25.96	206.0	1.06	0.27	1468.
75	4.72	32.77	75	25.97	205.6	1.58	0.59	1468.
100	4.72	32.78	99	25.97	205.3	2.09	1.05	1469.
125	4.53	33.61	124	26.65	141.2	2.54	1.56	1469.
150	4.50	33.75	149	26.77	130.5	2.88	2.04	1470.
175	4.21	33.78	174	26.82	125.4	3.20	2.56	1469.
200	3.98	33.80	199	26.86	121.6	3.50	3.15	1468.
225	3.92	33.84	223	26.90	118.5	3.80	3.80	1469.
250	3.91	33.88	248	26.93	115.6	4.10	4.51	1469.
300	3.85	33.92	298	26.97	112.4	4.67	6.11	1470.
400	3.83	34.04	397	27.07	104.1	5.75	9.96	1471.
500	3.67	34.12	496	27.15	97.0	6.75	14.57	1472.
600	3.50	34.18	595	27.21	91.8	7.70	19.85	1473.
800	3.15	34.28	793	27.32	81.8	9.43	32.16	1475.
1000	2.83	34.36	990	27.41	74.1	10.98	46.42	1477.
1200	2.60	34.40	1188	27.47	69.5	12.42	62.52	1480.
1500	2.32	34.45	1483	27.53	64.1	14.41	89.85	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 34

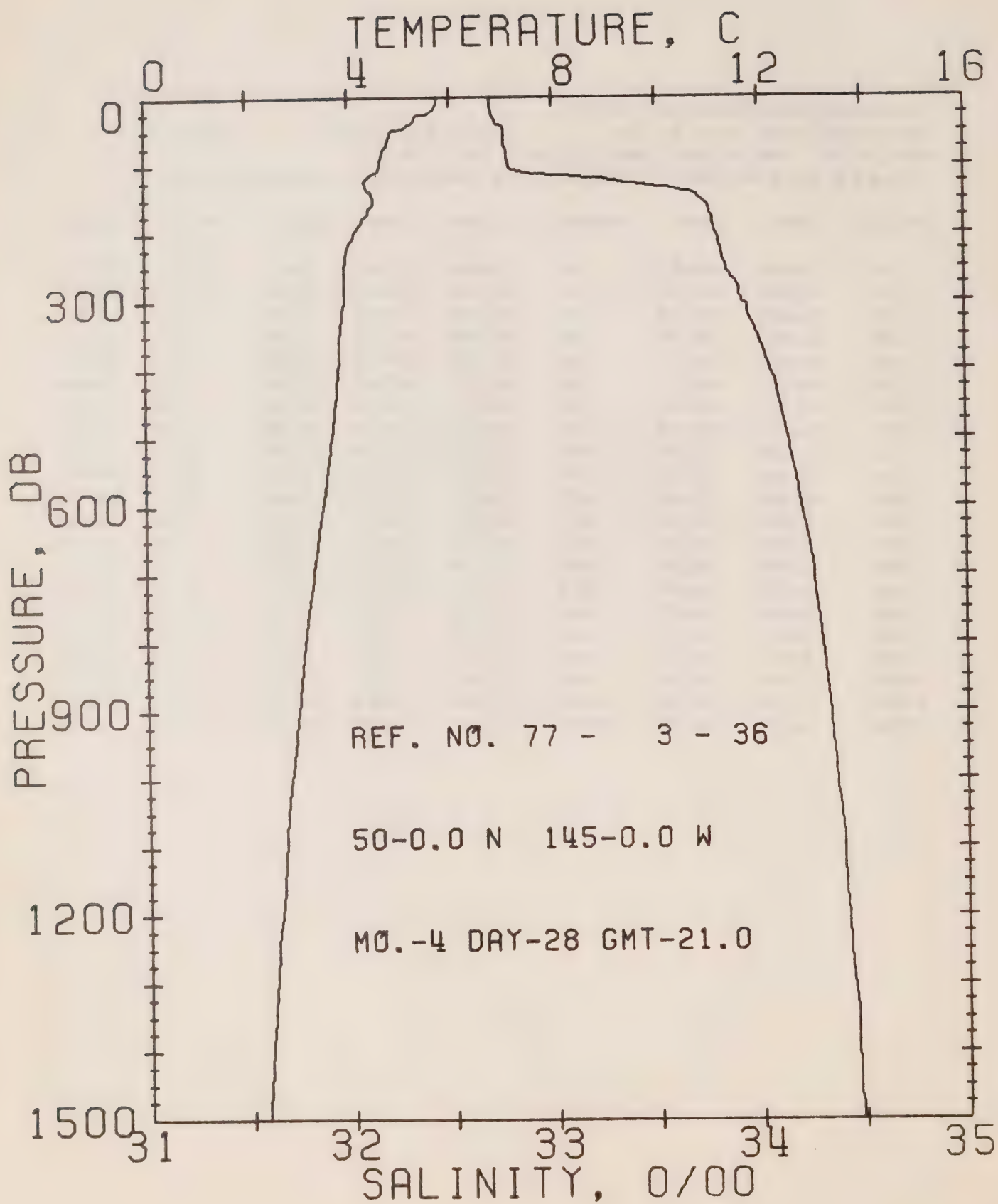
DATE 27/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 156 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.69	32.71	0	25.81	219.9	0.0	0.0	1471.
10	5.69	32.71	10	25.81	219.8	0.22	0.01	1471.
20	5.64	32.72	20	25.82	218.8	0.44	0.04	1471.
30	5.28	32.75	30	25.88	213.1	0.65	0.10	1470.
50	4.84	32.77	50	25.95	206.8	1.07	0.27	1468.
75	4.73	32.78	75	25.97	205.2	1.59	0.60	1468.
100	4.71	32.80	99	25.99	203.6	2.10	1.05	1469.
125	4.74	33.59	124	26.61	145.0	2.54	1.55	1470.
150	4.50	33.78	149	26.79	128.4	2.87	2.02	1470.
175	4.28	33.80	174	26.83	124.9	3.19	2.54	1469.
200	4.09	33.82	199	26.86	121.8	3.49	3.13	1469.
225	3.97	33.85	223	26.90	118.5	3.79	3.78	1469.
250	3.93	33.88	248	26.93	115.9	4.09	4.49	1469.
300	3.84	33.94	298	26.98	110.8	4.65	6.07	1470.
400	3.78	34.07	397	27.10	101.0	5.70	9.81	1471.
500	3.66	34.17	496	27.18	93.6	6.68	14.27	1472.
600	3.49	34.23	595	27.25	87.7	7.58	19.35	1473.
800	3.11	34.32	793	27.36	78.2	9.24	31.13	1475.
1000	2.83	34.38	990	27.43	72.0	10.74	44.87	1477.
1200	2.57	34.44	1188	27.50	65.9	12.11	60.20	1480.
1500	2.30	34.49	1483	27.56	61.0	14.00	86.15	1484.



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REFERENCE NO. 77- 3- 36

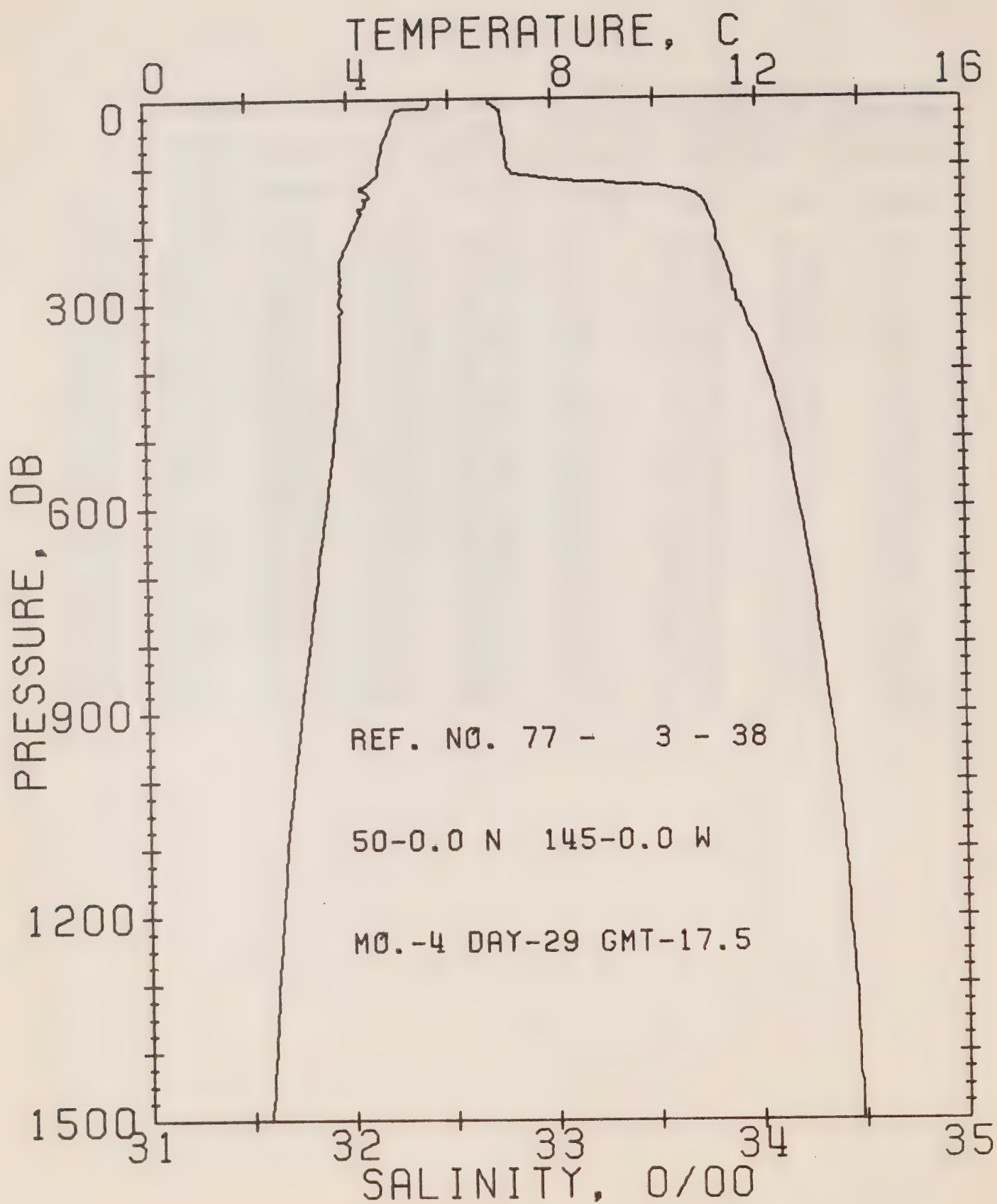
DATE 28/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 21.0

RESULTS OF STP CAST 165 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA C	POT. EN	SOUND
0	5.75	32.70	0	25.79	221.3	0.0	0.0	1471.
10	5.74	32.70	10	25.79	221.6	0.22	0.01	1471.
20	5.66	32.70	20	25.81	220.4	0.44	0.05	1471.
30	5.33	32.72	30	25.85	216.0	0.66	0.10	1470.
50	4.87	32.77	50	25.95	207.1	1.09	0.27	1468.
75	4.72	32.77	75	25.97	205.6	1.60	0.60	1468.
100	4.63	32.79	99	25.99	203.5	2.11	1.06	1468.
125	4.34	33.34	124	26.46	159.5	2.58	1.59	1468.
150	4.51	33.73	149	26.75	132.5	2.93	2.08	1470.
175	4.34	33.78	174	26.80	127.1	3.26	2.62	1469.
200	4.11	33.80	199	26.84	123.6	3.57	3.22	1469.
225	3.97	33.82	223	26.88	120.5	3.88	3.88	1469.
250	3.92	33.84	248	26.90	118.4	4.17	4.60	1469.
300	3.91	33.92	298	26.96	113.0	4.75	6.22	1470.
400	3.79	34.05	397	27.08	102.6	5.82	10.03	1471.
500	3.65	34.14	496	27.16	95.3	6.81	14.55	1472.
600	3.47	34.20	595	27.23	89.6	7.73	19.73	1473.
800	3.10	34.30	793	27.34	80.0	9.42	31.71	1475.
1000	2.80	34.37	990	27.42	73.0	10.94	45.68	1477.
1200	2.58	34.42	1188	27.48	67.8	12.34	61.37	1480.
1500	2.28	34.48	1483	27.56	61.5	14.27	87.85	1483.



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REFERENCE NO. 77- 3- 38

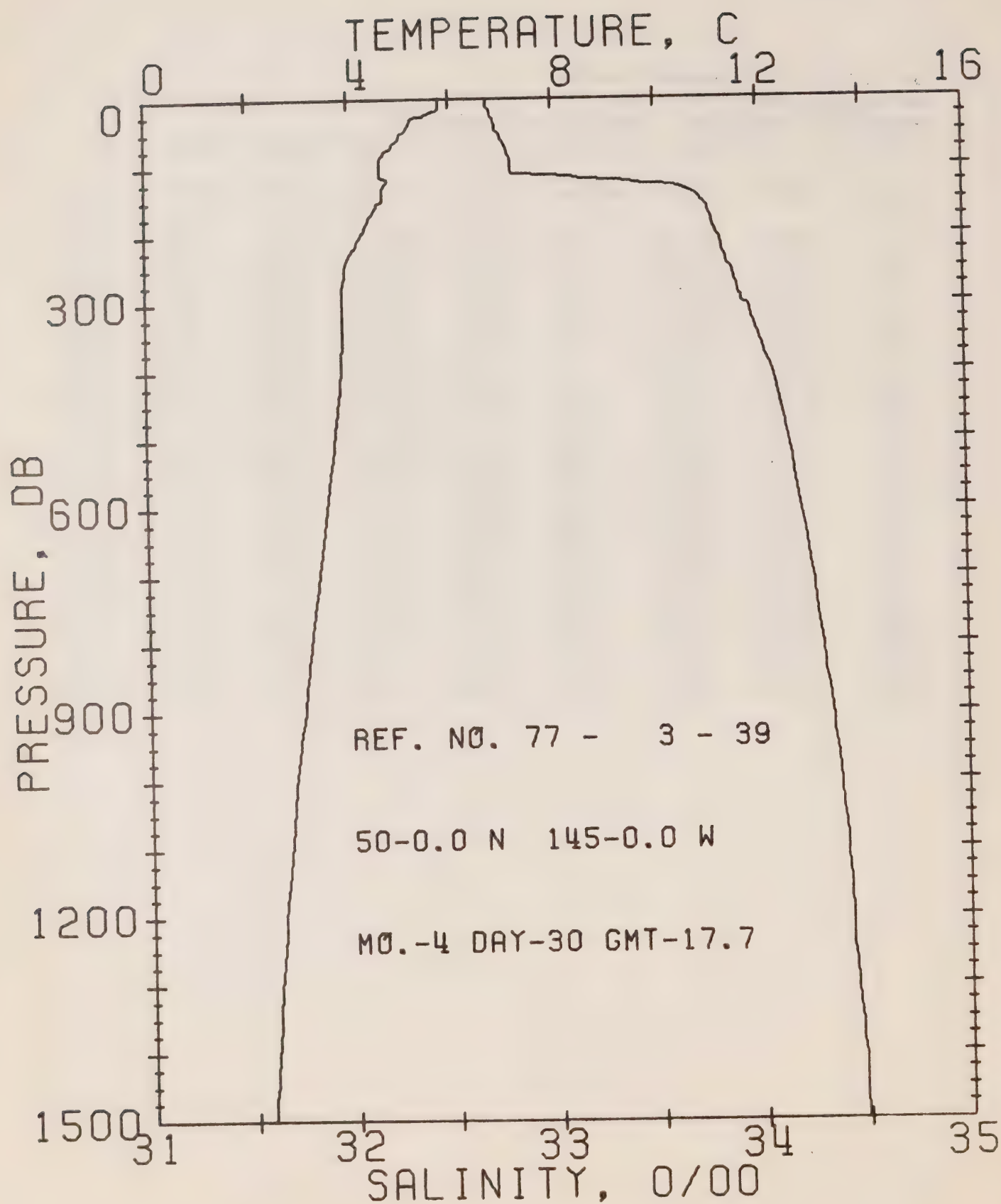
DATE 29/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 169 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.62	32.70	0	25.81	219.9	0.0	0.0	1470.
10	5.61	32.71	10	25.82	219.0	0.22	0.01	1471.
20	4.94	32.75	20	25.93	209.1	0.43	0.04	1468.
30	4.89	32.76	30	25.94	208.0	0.64	0.10	1468.
50	4.79	32.77	50	25.96	206.3	1.06	0.27	1468.
75	4.68	32.78	75	25.98	204.6	1.57	0.59	1468.
100	4.61	32.79	99	25.99	203.3	2.08	1.05	1468.
125	4.41	33.33	124	26.44	160.9	2.56	1.60	1468.
150	4.37	33.74	149	26.77	130.0	2.90	2.08	1469.
175	4.22	33.78	174	26.82	125.6	3.22	2.61	1469.
200	4.06	33.81	199	26.86	122.0	3.53	3.20	1469.
225	3.90	33.83	223	26.89	118.9	3.83	3.85	1469.
250	3.85	33.86	248	26.92	116.4	4.13	4.56	1469.
300	3.82	33.91	298	26.96	112.9	4.70	6.17	1470.
400	3.81	34.05	397	27.08	102.9	5.78	9.99	1471.
500	3.69	34.14	496	27.16	95.6	6.77	14.54	1473.
600	3.54	34.20	595	27.22	90.6	7.70	19.75	1474.
800	3.18	34.31	793	27.34	80.3	9.40	31.87	1476.
1000	2.85	34.38	990	27.43	72.5	10.93	45.83	1478.
1200	2.60	34.43	1188	27.49	67.3	12.32	61.38	1480.
1500	2.33	34.48	1483	27.55	62.1	14.24	87.84	1484.



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REFERENCE NO. 77- 3- 39

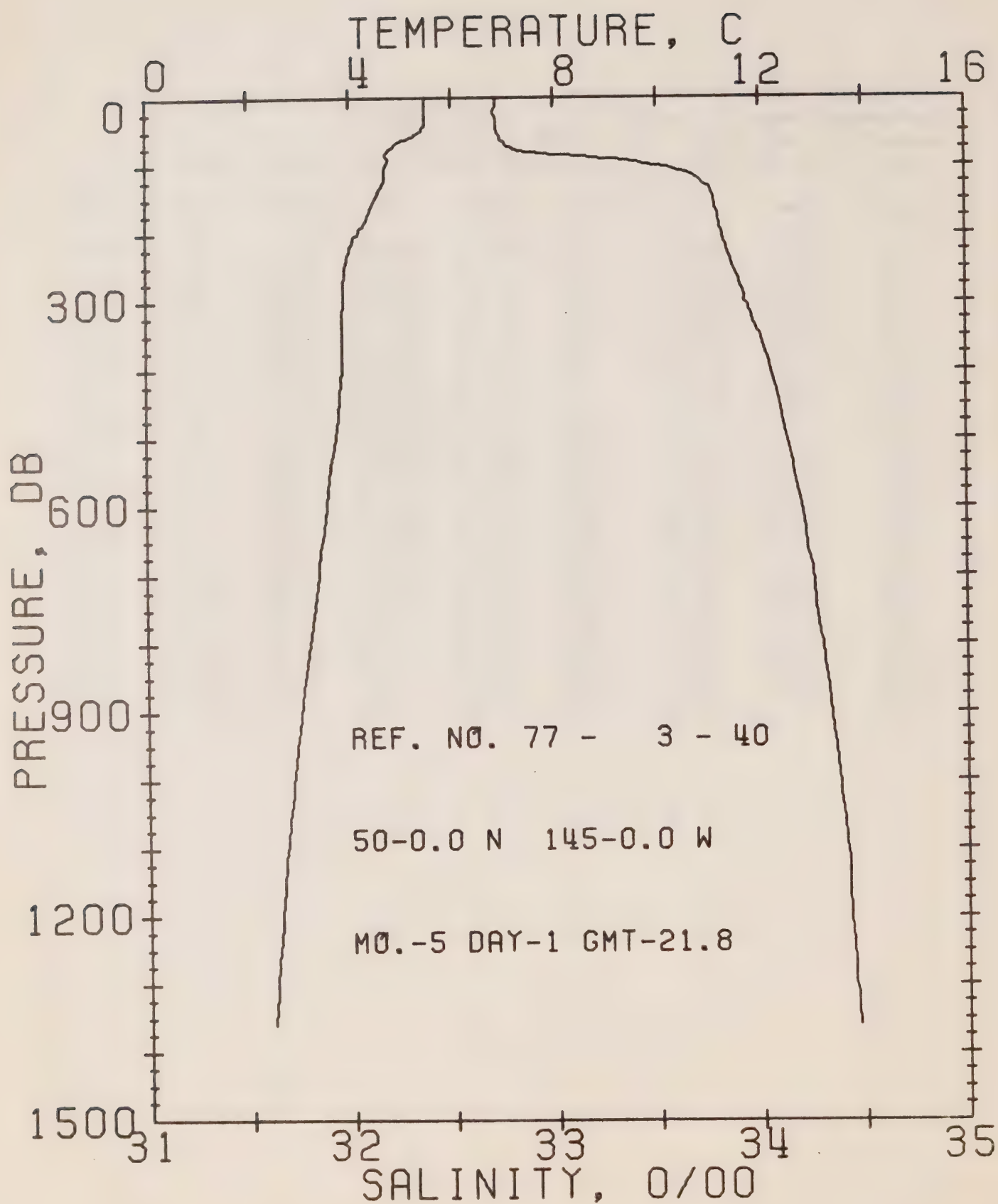
DATE 30/ 4/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.7

RESULTS OF STP CAST 161 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.80	32.69	0	25.78	222.7	0.0	0.0	1471.
10	5.80	32.69	10	25.78	223.0	0.22	0.01	1471.
20	5.69	32.71	20	25.81	220.6	0.45	0.05	1471.
30	5.26	32.72	30	25.87	214.9	0.66	0.10	1470.
50	5.10	32.74	50	25.90	211.9	1.09	0.27	1469.
75	4.81	32.78	75	25.96	206.0	1.61	0.61	1468.
100	4.65	32.80	99	26.00	203.0	2.12	1.06	1468.
125	4.75	33.46	124	26.51	154.8	2.59	1.60	1470.
150	4.68	33.73	149	26.73	134.0	2.94	2.08	1470.
175	4.43	33.78	174	26.79	128.1	3.27	2.62	1470.
200	4.26	33.81	199	26.84	124.3	3.58	3.23	1470.
225	4.03	33.83	223	26.88	120.3	3.89	3.89	1469.
250	3.92	33.87	248	26.92	116.3	4.18	4.61	1469.
300	3.87	33.92	298	26.97	112.6	4.75	6.21	1470.
400	3.84	34.06	397	27.08	102.4	5.82	10.01	1471.
500	3.70	34.14	496	27.16	95.7	6.81	14.53	1473.
600	3.52	34.20	595	27.22	90.5	7.74	19.75	1474.
800	3.19	34.30	793	27.33	80.9	9.45	31.92	1476.
1000	2.85	34.38	990	27.43	72.7	10.98	45.94	1478.
1200	2.60	34.43	1188	27.49	67.3	12.38	61.56	1480.
1500	2.30	34.49	1483	27.56	61.0	14.30	87.98	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 40

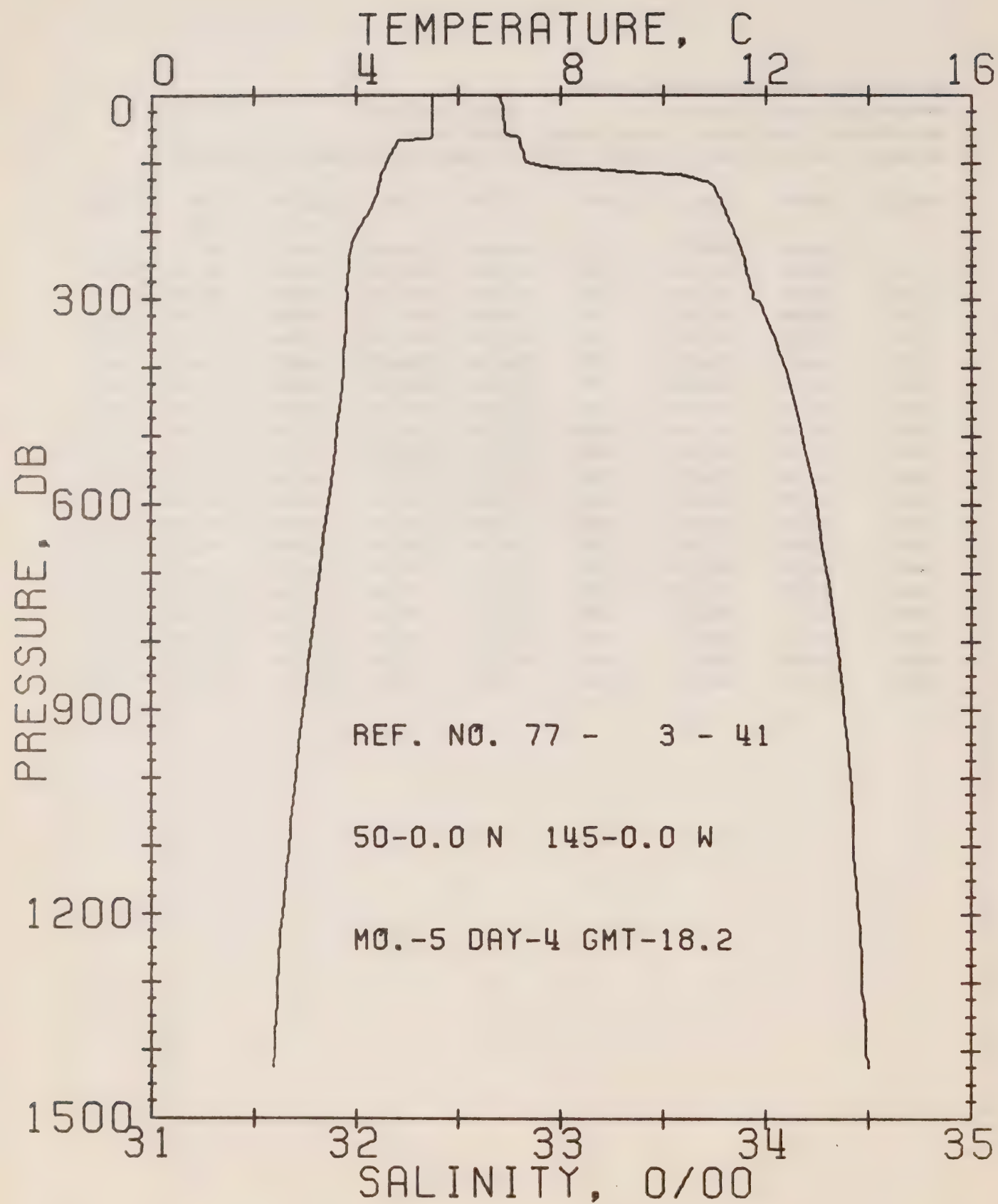
DATE 1/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 21.8

RESULTS OF STP CAST 153 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.48	32.72	0	25.84	216.8	0.0	0.0	1470.
10	5.49	32.72	10	25.84	217.2	0.22	0.01	1470.
20	5.49	32.71	20	25.83	217.8	0.43	0.04	1470.
30	5.49	32.72	30	25.84	217.7	0.65	0.10	1470.
50	5.40	32.72	50	25.85	216.3	1.09	0.28	1470.
75	4.80	32.80	75	25.98	204.3	1.61	0.61	1468.
100	4.71	33.50	99	26.54	151.1	2.06	1.01	1469.
125	4.67	33.73	124	26.73	134.0	2.41	1.41	1470.
150	4.50	33.78	149	26.79	128.3	2.74	1.86	1470.
175	4.33	33.80	174	26.82	125.3	3.05	2.39	1470.
200	4.15	33.82	199	26.86	122.1	3.36	2.98	1469.
225	3.99	33.84	223	26.89	118.9	3.66	3.63	1469.
250	3.89	33.87	248	26.93	116.0	3.96	4.34	1469.
300	3.87	33.93	298	26.97	111.9	4.53	5.93	1470.
400	3.83	34.06	397	27.08	102.9	5.59	9.74	1471.
500	3.70	34.13	496	27.15	96.5	6.59	14.30	1473.
600	3.51	34.20	595	27.22	90.2	7.52	19.52	1474.
800	3.17	34.30	793	27.34	80.5	9.23	31.69	1475.
1000	2.85	34.38	990	27.43	72.6	10.76	45.69	1477.
1200	2.59	34.43	1188	27.49	67.2	12.15	61.24	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 41

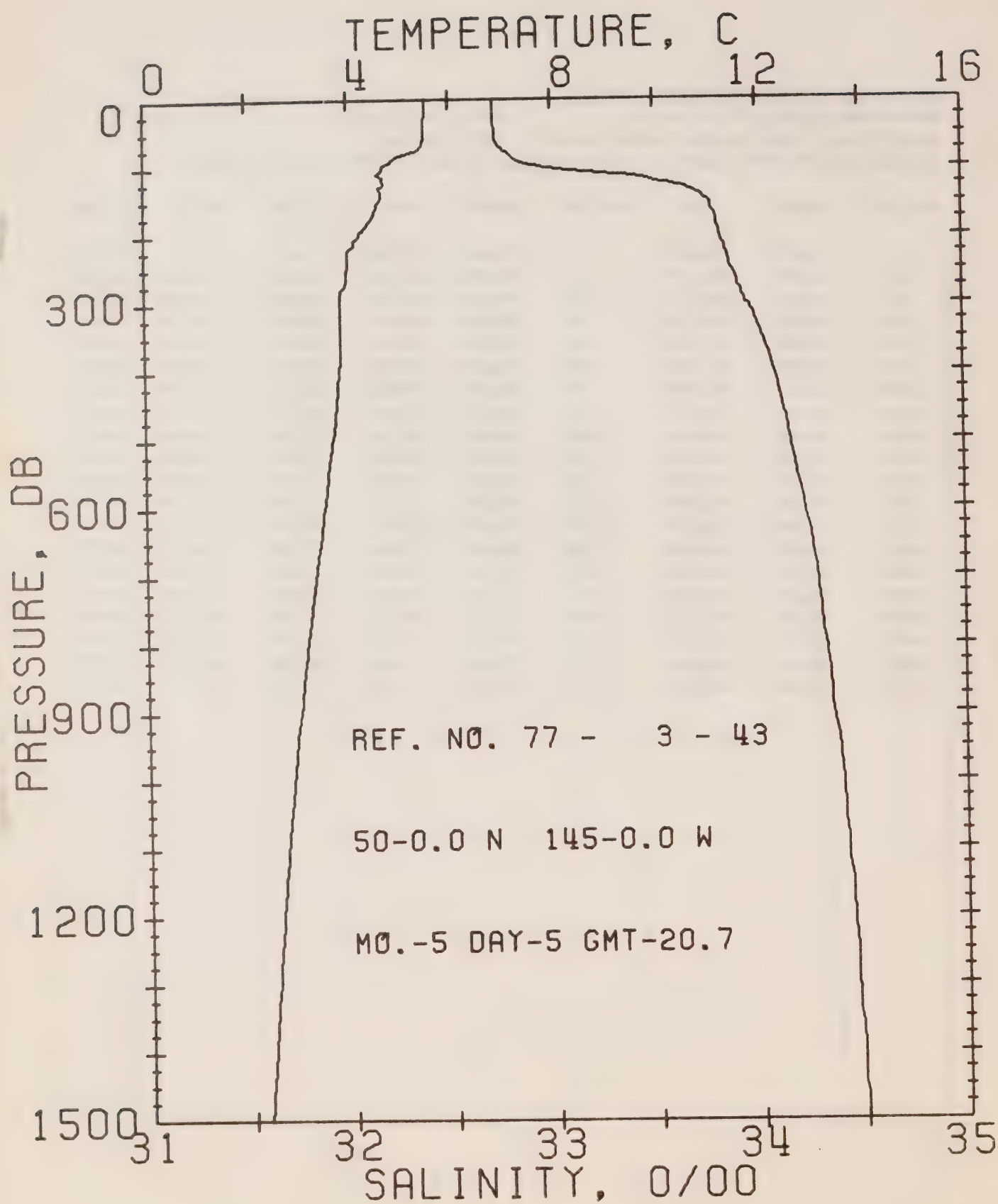
DATE 4/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.2

RESULTS OF STP CAST 140 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.49	32.69	0	25.82	219.2	0.0	0.0	1470.
10	5.50	32.71	10	25.83	218.1	0.22	0.01	1470.
20	5.50	32.72	20	25.84	217.5	0.44	0.04	1470.
30	5.50	32.72	30	25.84	217.6	0.65	0.10	1471.
50	5.50	32.73	50	25.85	217.0	1.09	0.28	1471.
75	4.74	32.81	75	25.99	203.0	1.62	0.61	1468.
100	4.59	32.85	99	26.04	198.6	2.12	1.06	1468.
125	4.47	33.70	124	26.73	133.8	2.53	1.53	1469.
150	4.38	33.78	149	26.80	127.4	2.86	1.98	1469.
175	4.21	33.81	174	26.84	123.3	3.17	2.50	1469.
200	4.03	33.85	199	26.89	118.9	3.47	3.08	1469.
225	3.90	33.88	223	26.93	115.3	3.77	3.72	1469.
250	3.86	33.90	248	26.95	113.7	4.05	4.41	1469.
300	3.83	33.95	298	26.99	110.2	4.61	5.97	1470.
400	3.75	34.09	397	27.12	99.2	5.65	9.67	1471.
500	3.61	34.18	496	27.20	92.1	6.60	14.04	1472.
600	3.46	34.25	595	27.27	86.1	7.49	19.02	1473.
800	3.13	34.35	793	27.38	76.7	9.12	30.58	1475.
1000	2.82	34.42	990	27.46	69.5	10.58	43.94	1477.
1200	2.56	34.45	1188	27.51	65.0	11.93	59.04	1480.



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REFERENCE NO. 77- 3- 43

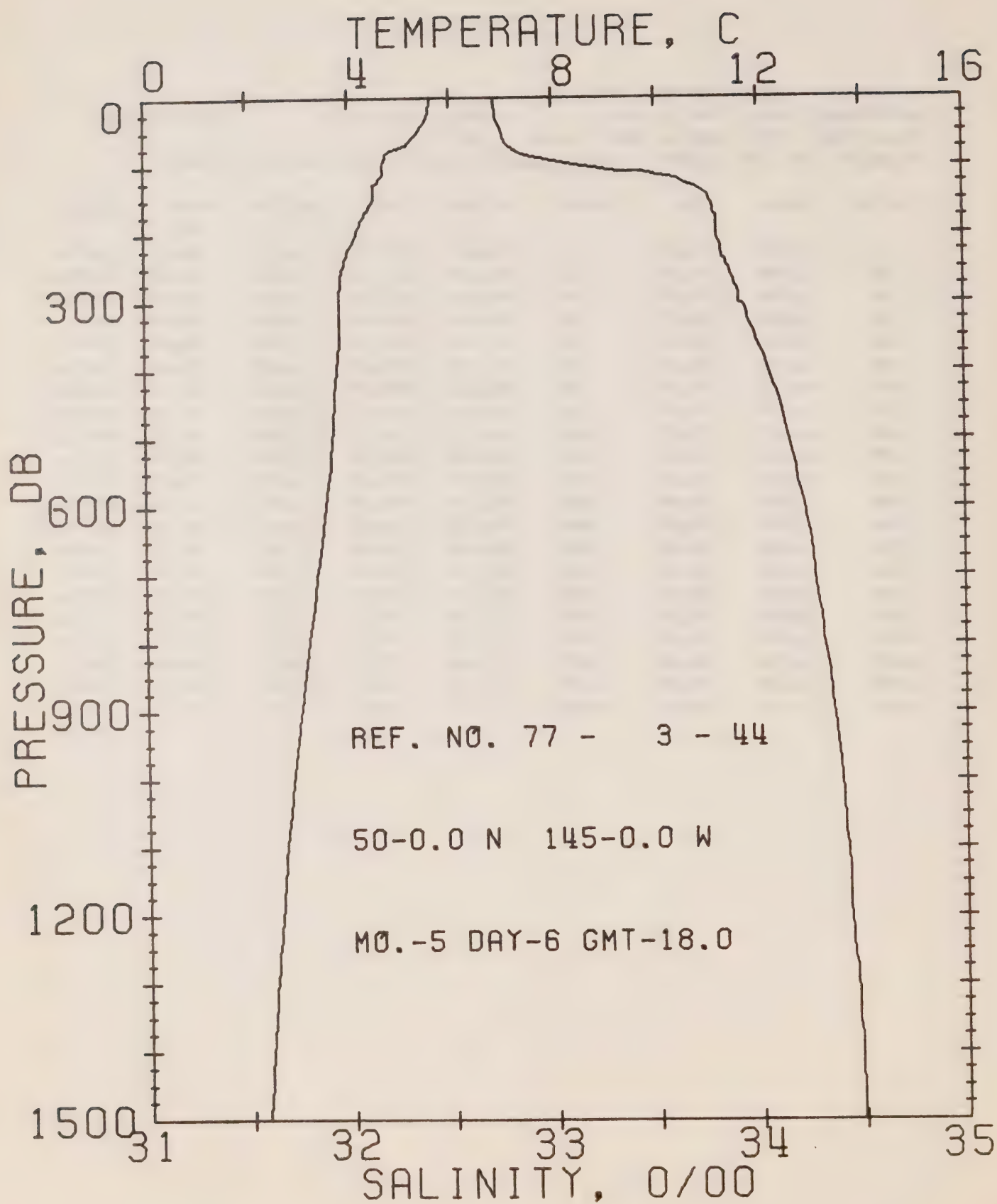
DATE 5/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 20.7

RESULTS OF STP CAST 176 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. EN	SOUND
0	5.55	32.72	0	25.83	217.6	0.0	0.0	1470.
10	5.54	32.72	10	25.83	217.8	0.22	0.01	1470.
20	5.54	32.72	20	25.83	217.8	0.44	0.04	1471.
30	5.53	32.72	30	25.83	217.9	0.65	0.10	1471.
50	5.52	32.73	50	25.84	217.3	1.09	0.28	1471.
75	5.37	32.77	75	25.89	212.8	1.63	0.62	1471.
100	4.68	32.97	99	26.12	190.9	2.14	1.07	1469.
125	4.70	33.62	124	26.64	142.2	2.54	1.54	1470.
150	4.62	33.77	149	26.77	130.1	2.88	2.01	1470.
175	4.45	33.81	174	26.82	125.8	3.20	2.54	1470.
200	4.21	33.82	199	26.85	122.8	3.51	3.14	1469.
225	4.01	33.85	223	26.90	118.4	3.81	3.79	1469.
250	3.98	33.88	248	26.92	116.3	4.11	4.50	1469.
300	3.83	33.95	298	26.99	110.0	4.67	6.08	1470.
400	3.82	34.08	397	27.10	100.9	5.72	9.81	1471.
500	3.67	34.16	496	27.17	94.4	6.70	14.28	1473.
600	3.49	34.23	595	27.25	88.2	7.61	19.39	1473.
800	3.13	34.33	793	27.36	78.3	9.27	31.20	1475.
1000	2.83	34.40	990	27.45	70.9	10.76	44.86	1477.
1200	2.59	34.45	1188	27.51	65.6	12.13	60.18	1480.
1500	2.30	34.50	1483	27.57	60.3	14.02	86.08	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 44

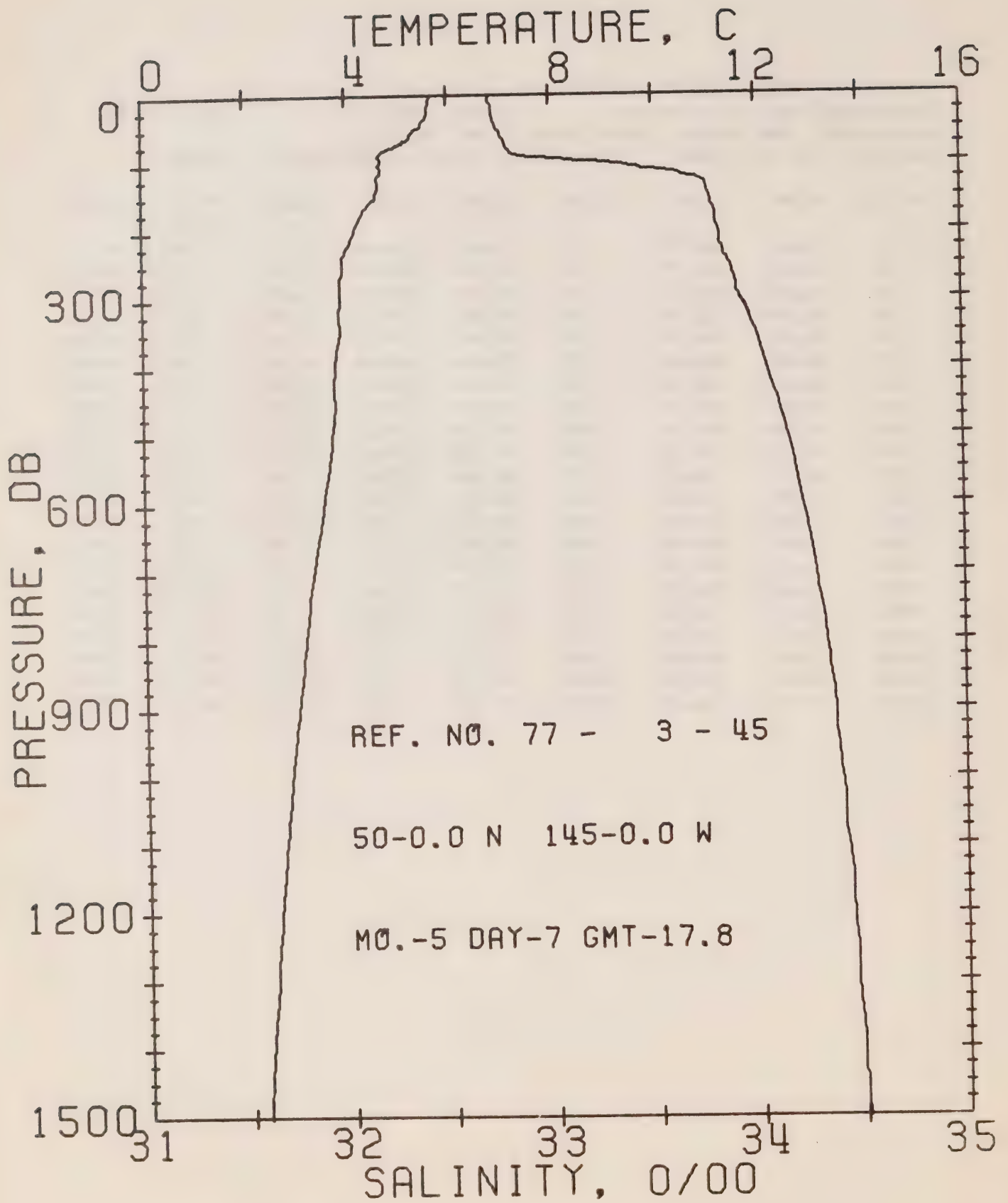
DATE 6/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 18.0

RESULTS OF STP CAST 163 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	5.62	32.72	0	25.82	218.3	0.0	0.0	1471.
10	5.62	32.72	10	25.82	218.7	0.22	0.01	1471.
20	5.60	32.73	20	25.83	217.9	0.44	0.04	1471.
30	5.56	32.73	30	25.84	217.5	0.65	0.10	1471.
50	5.38	32.75	50	25.88	214.2	1.09	0.28	1470.
75	4.89	32.81	75	25.98	204.5	1.61	0.61	1469.
100	4.67	33.16	95	26.28	176.2	2.10	1.04	1469.
125	4.54	33.65	124	26.68	138.3	2.48	1.48	1469.
150	4.48	33.77	149	26.78	129.1	2.81	1.94	1470.
175	4.28	33.80	174	26.83	124.8	3.13	2.47	1469.
200	4.15	33.80	199	26.84	123.7	3.44	3.06	1469.
225	3.98	33.82	223	26.88	120.6	3.75	3.72	1469.
250	3.88	33.86	248	26.92	117.0	4.04	4.44	1469.
300	3.82	33.91	298	26.96	112.9	4.62	6.04	1470.
400	3.76	34.05	397	27.08	102.9	5.69	9.87	1471.
500	3.66	34.15	496	27.17	95.2	6.67	14.38	1472.
600	3.51	34.22	595	27.24	88.6	7.59	19.53	1474.
800	3.17	34.31	793	27.35	79.6	9.27	31.47	1475.
1000	2.84	34.40	990	27.44	71.2	10.77	45.20	1477.
1200	2.59	34.43	1188	27.49	66.8	12.15	60.59	1480.
1500	2.28	34.49	1483	27.57	60.7	14.04	86.66	1483.



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REFERENCE NO. 77- 3- 45

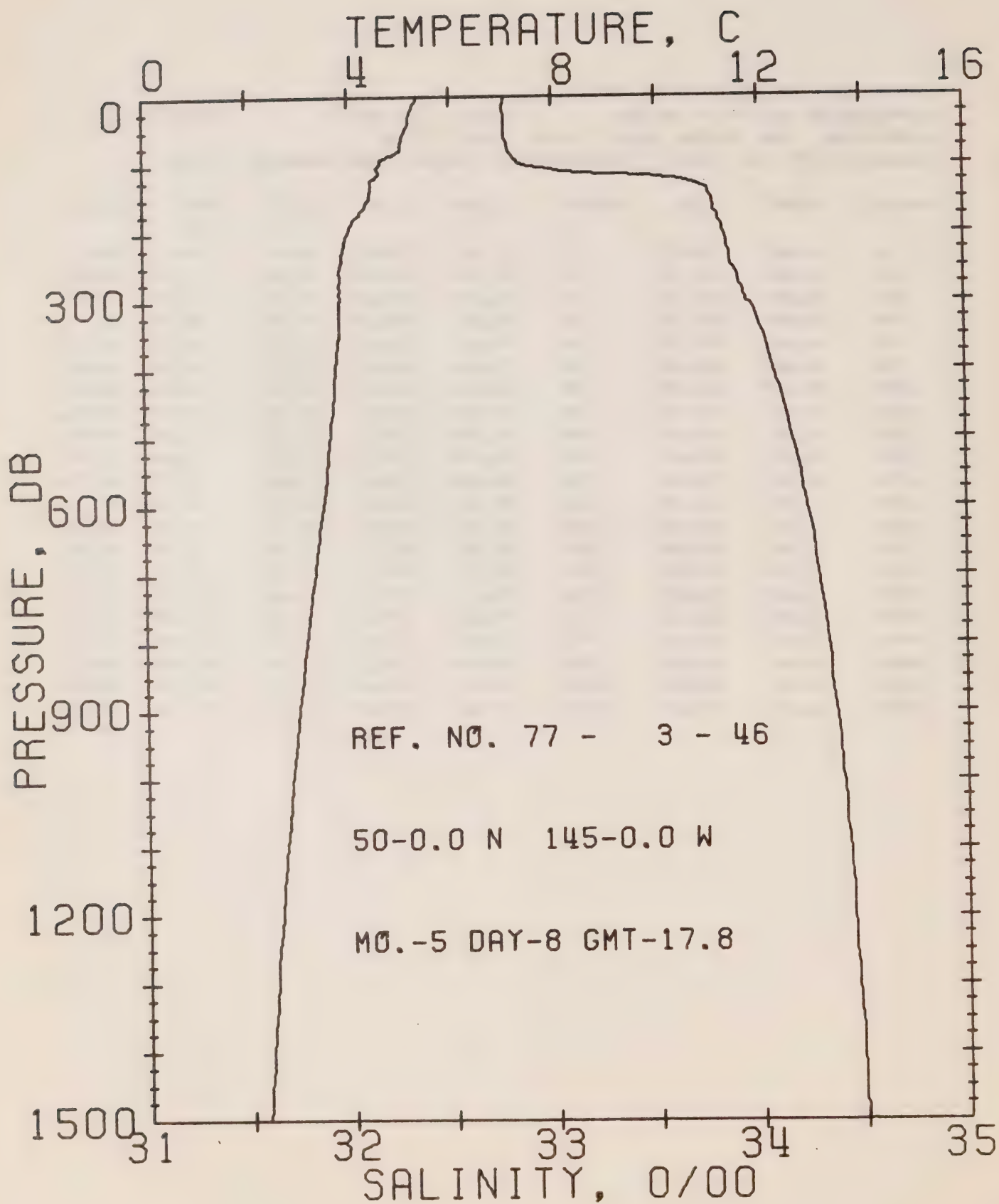
DATE 7/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.8

RESULTS OF STP CAST 191 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.67	32.71	0	25.81	219.7	0.0	0.0	1471.
10	5.65	32.71	10	25.81	219.7	0.22	0.01	1471.
20	5.64	32.72	20	25.82	218.9	0.44	0.04	1471.
30	5.61	32.72	30	25.82	218.8	0.66	0.10	1471.
50	5.38	32.75	50	25.88	214.2	1.09	0.28	1470.
75	4.96	32.79	75	25.96	206.8	1.62	0.61	1469.
100	4.67	33.33	99	26.41	163.4	2.10	1.04	1469.
125	4.64	33.74	124	26.75	132.3	2.47	1.46	1470.
150	4.57	33.78	149	26.78	129.1	2.79	1.92	1470.
175	4.28	33.81	174	26.84	124.1	3.11	2.44	1469.
200	4.15	33.82	199	26.86	122.0	3.42	3.03	1469.
225	3.98	33.84	223	26.89	119.2	3.72	3.68	1469.
250	3.93	33.88	248	26.93	115.9	4.01	4.39	1469.
300	3.86	33.92	298	26.97	112.5	4.58	5.99	1470.
400	3.76	34.05	397	27.08	102.5	5.65	9.79	1471.
500	3.68	34.15	496	27.16	95.5	6.64	14.32	1473.
600	3.50	34.22	595	27.24	89.0	7.56	19.47	1474.
800	3.11	34.33	793	27.36	77.8	9.22	31.27	1475.
1000	2.82	34.40	990	27.44	71.1	10.71	44.88	1477.
1200	2.57	34.45	1188	27.51	65.6	12.07	60.14	1480.
1500	2.29	34.51	1483	27.58	59.4	13.94	85.90	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 46

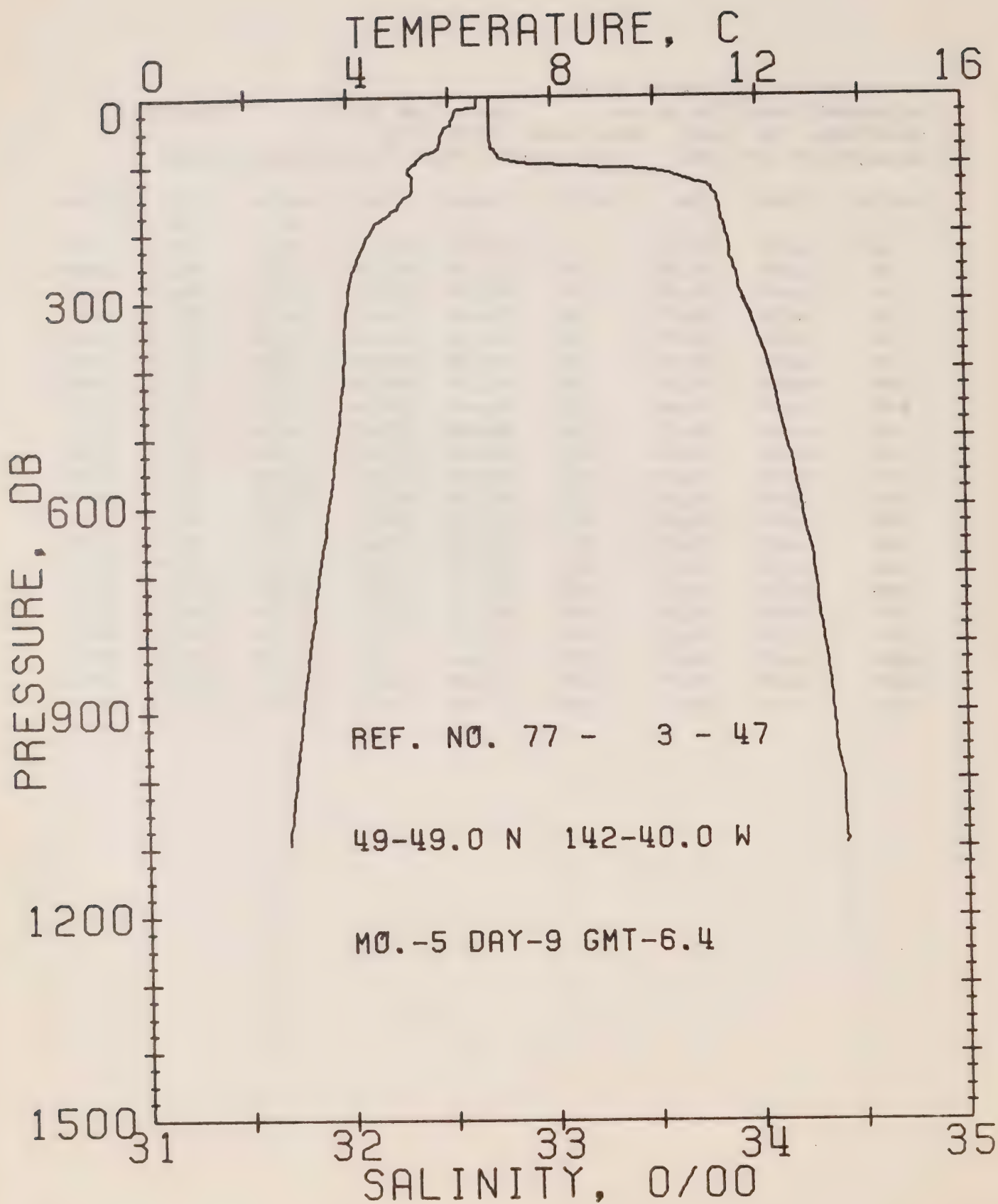
DATE 8/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.8

RESULTS OF STP CAST 149 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.36	32.77	0	25.89	211.7	0.0	0.0	1470.
10	5.32	32.77	10	25.90	211.8	0.21	0.01	1469.
20	5.24	32.76	20	25.90	211.6	0.42	0.04	1469.
30	5.19	32.77	30	25.91	210.4	0.63	0.10	1469.
50	5.14	32.77	50	25.92	210.1	1.06	0.27	1469.
75	5.04	32.78	75	25.94	208.5	1.58	0.60	1469.
100	4.60	32.86	99	26.05	198.0	2.09	1.06	1468.
125	4.46	33.65	124	26.69	137.2	2.51	1.54	1469.
150	4.40	33.78	149	26.80	127.4	2.84	2.00	1469.
175	4.20	33.80	174	26.84	123.6	3.16	2.52	1469.
200	3.99	33.83	199	26.88	119.5	3.46	3.10	1468.
225	3.89	33.85	223	26.91	117.2	3.75	3.74	1469.
250	3.83	33.88	248	26.93	115.2	4.04	4.44	1469.
300	3.82	33.94	298	26.99	110.6	4.61	6.02	1470.
400	3.74	34.07	397	27.10	100.8	5.66	9.75	1471.
500	3.61	34.16	496	27.18	93.7	6.63	14.19	1472.
600	3.48	34.23	595	27.25	87.7	7.53	19.27	1473.
800	3.12	34.33	793	27.36	78.0	9.18	31.01	1475.
1000	2.82	34.40	990	27.44	71.0	10.67	44.64	1477.
1200	2.58	34.44	1188	27.50	66.0	12.04	59.93	1480.
1500	2.30	34.50	1483	27.57	60.3	13.92	85.86	1484.



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REFERENCE NO. 77- 3- 47

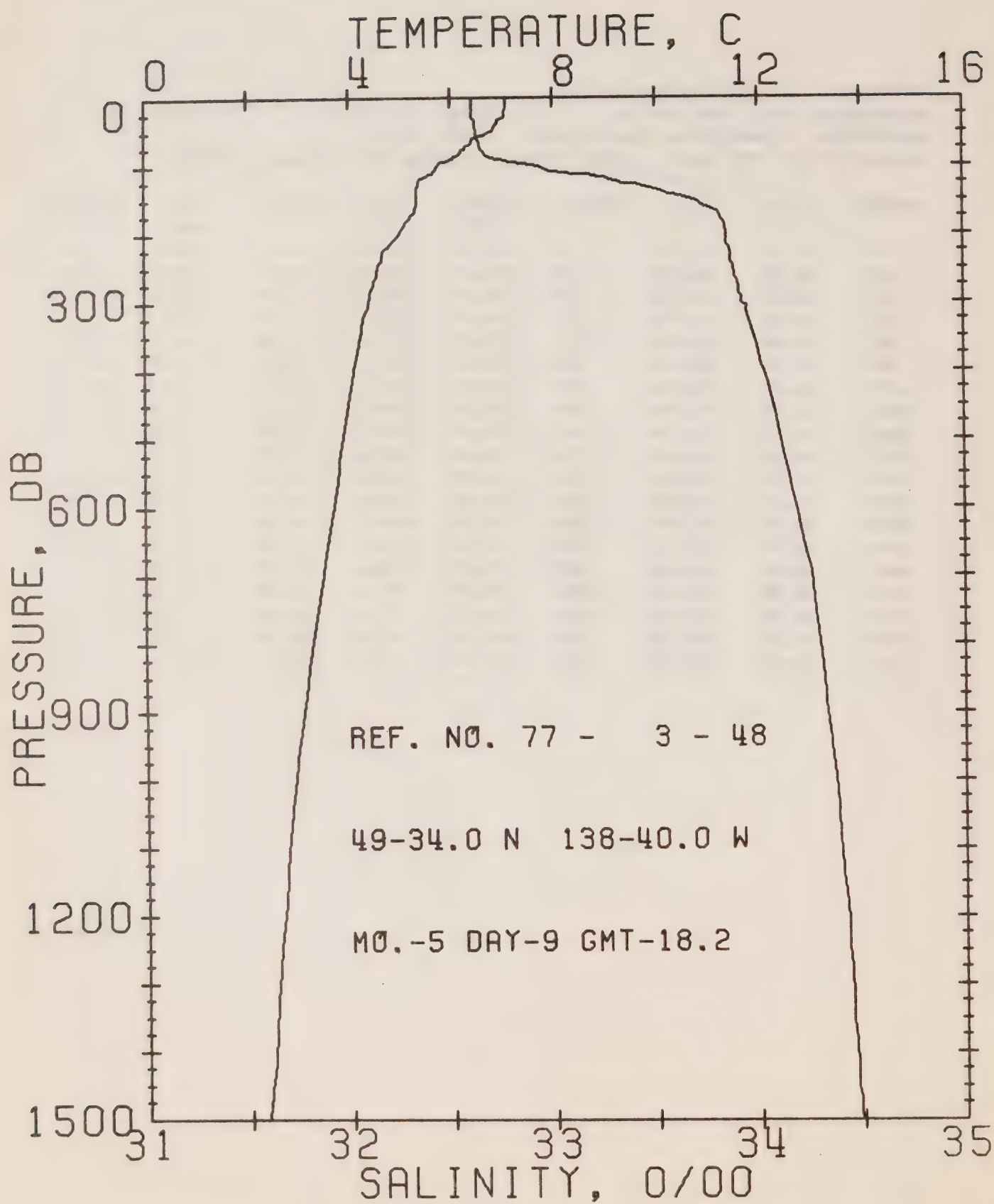
DATE 9/ 5/77

STATION 12

POSITION 49-49.0N, 142-40.0W GMT 6.4

RESULTS OF STP CAST 162 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	6.55	32.70	0	25.69	230.8	0.0	0.0	1474.
10	6.55	32.70	10	25.69	231.2	0.23	0.01	1474.
20	6.13	32.70	20	25.75	226.2	0.46	0.05	1473.
30	6.08	32.70	30	25.75	225.8	0.69	0.10	1473.
50	5.88	32.70	50	25.78	223.6	1.14	0.29	1472.
75	5.79	32.71	75	25.80	222.1	1.69	0.64	1472.
100	5.29	33.02	99	26.10	193.5	2.23	1.12	1471.
125	5.29	33.71	124	26.64	142.1	2.62	1.57	1473.
150	5.10	33.81	149	26.75	132.7	2.96	2.05	1472.
175	4.74	33.83	174	26.80	127.4	3.29	2.58	1471.
200	4.43	33.85	199	26.85	122.8	3.60	3.18	1470.
225	4.26	33.87	223	26.89	119.7	3.91	3.84	1470.
250	4.12	33.89	248	26.92	117.1	4.20	4.56	1470.
300	3.99	33.93	298	26.96	113.1	4.78	6.17	1470.
400	3.90	34.06	397	27.07	103.6	5.85	10.00	1472.
500	3.76	34.13	496	27.14	97.2	6.86	14.60	1473.
600	3.58	34.20	595	27.22	90.6	7.80	19.85	1474.
800	3.20	34.31	793	27.34	80.0	9.49	31.94	1476.
1000	2.88	34.40	990	27.44	71.4	11.01	45.83	1478.



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REFERENCE NO. 77- 3- 48

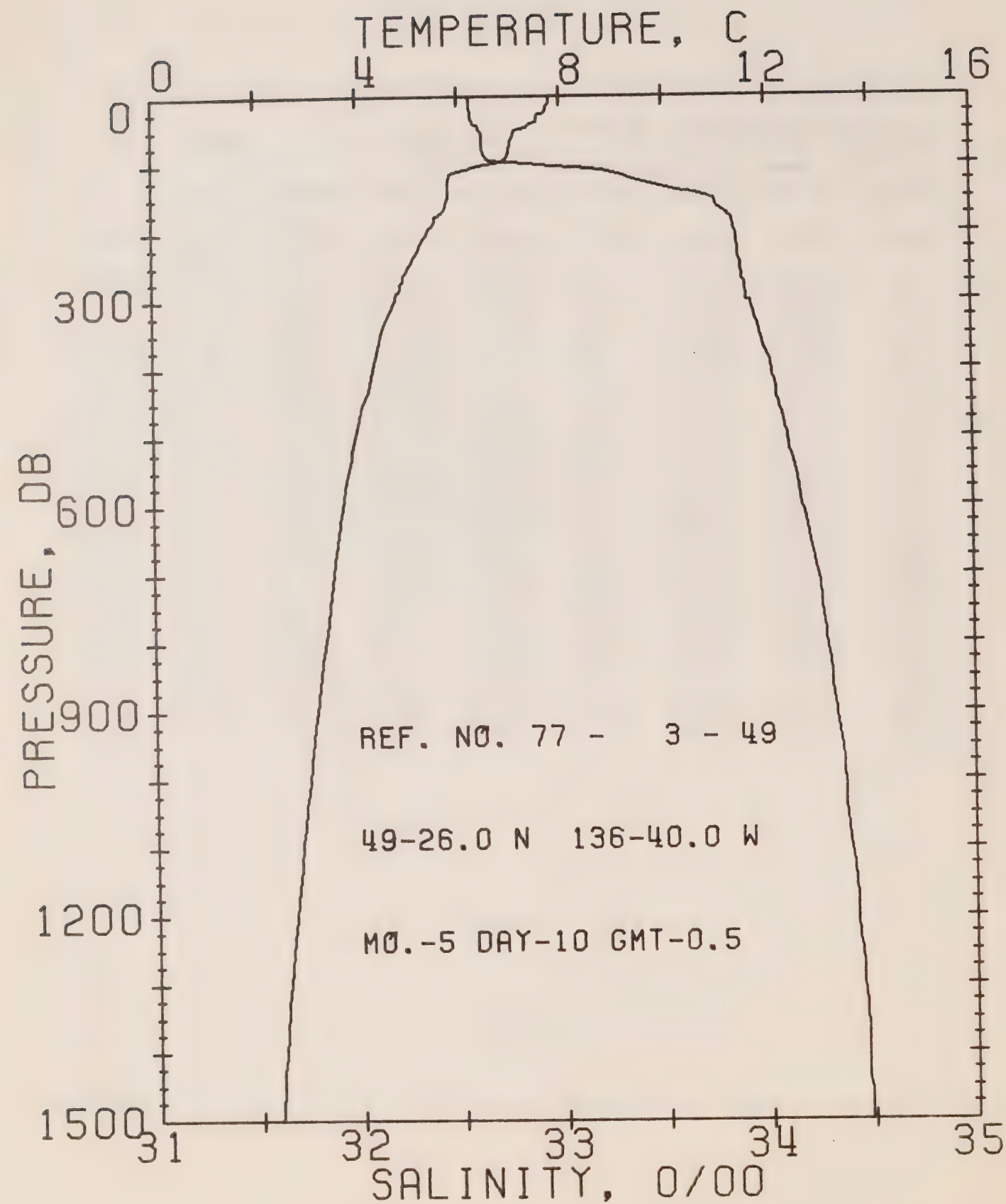
DATE 9/ 5/77

STATION 10

POSITION 49-34.0N. 138-40.0W GMT 18.2

RESULTS OF STP CAST 169 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.09	32.61	0	25.55	244.4	0.0	0.0	1476.
10	7.09	32.61	10	25.55	244.7	0.24	0.01	1476.
20	7.08	32.61	20	25.55	244.7	0.49	0.05	1477.
30	7.06	32.61	30	25.56	244.5	0.73	0.11	1477.
50	6.81	32.63	50	25.60	240.1	1.22	0.31	1476.
75	6.27	32.65	75	25.69	232.2	1.81	0.68	1474.
100	5.74	32.91	99	25.96	206.5	2.37	1.18	1473.
125	5.36	33.34	124	26.34	170.5	2.84	1.72	1472.
150	5.34	33.68	149	26.62	145.1	3.23	2.27	1473.
175	5.21	33.82	174	26.74	133.6	3.58	2.84	1473.
200	4.97	33.85	199	26.79	128.8	3.90	3.47	1473.
225	4.67	33.86	223	26.84	124.6	4.22	4.15	1472.
250	4.56	33.88	248	26.86	122.5	4.53	4.90	1472.
300	4.37	33.92	298	26.91	117.9	5.13	6.58	1472.
400	4.08	34.02	397	27.03	107.9	6.25	10.58	1472.
500	3.87	34.11	496	27.12	100.1	7.29	15.32	1473.
600	3.68	34.18	595	27.19	93.4	8.26	20.75	1474.
800	3.25	34.30	793	27.33	81.7	10.00	33.13	1476.
1000	2.90	34.37	990	27.42	73.7	11.55	47.36	1478.
1200	2.66	34.43	1188	27.48	68.1	12.98	63.31	1480.
1500	2.33	34.49	1484	27.56	61.4	14.53	90.12	1484.



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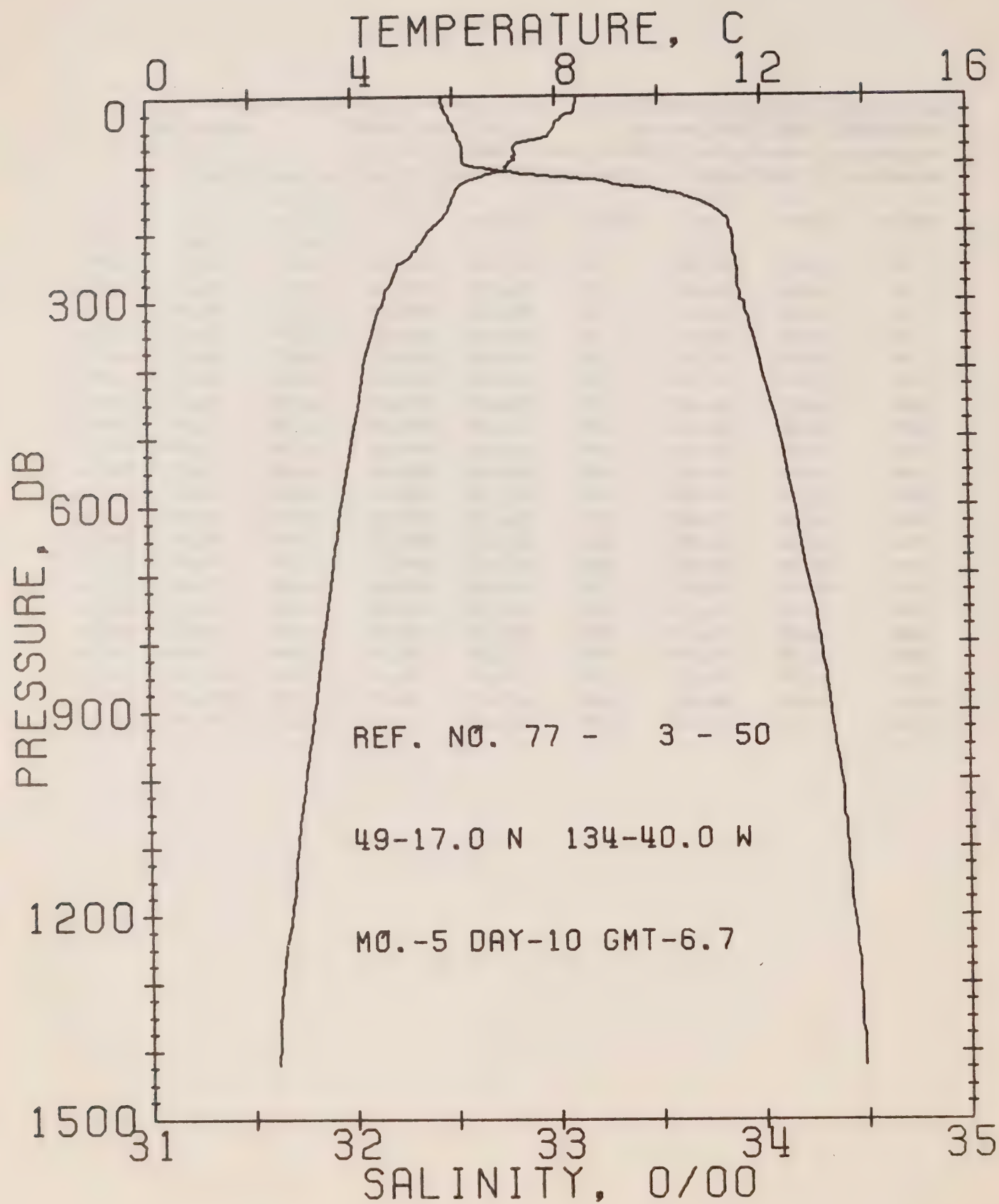
DATE 10/ 5/77

STATION 9

POSITION 49-26.0N, 136-40.0W GMT 0.5

RESULTS OF STP CAST 166 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.81	32.55	0	25.40	258.3	0.0	0.0	1479.
10	7.80	32.56	10	25.41	257.8	0.26	0.01	1479.
20	7.74	32.56	20	25.42	257.0	0.52	0.05	1479.
30	7.57	32.57	30	25.45	254.2	0.77	0.12	1479.
50	7.13	32.61	50	25.55	245.7	1.27	0.32	1477.
75	7.02	32.62	75	25.57	243.9	1.88	0.71	1477.
100	6.65	32.87	99	25.81	220.8	2.48	1.25	1476.
125	5.82	33.38	124	26.32	172.5	2.96	1.78	1474.
150	5.81	33.74	149	26.61	146.1	3.35	2.34	1475.
175	5.60	33.82	174	26.69	138.0	3.71	2.93	1475.
200	5.39	33.86	199	26.75	133.1	4.05	3.57	1474.
225	5.20	33.87	223	26.78	130.1	4.37	4.28	1474.
250	5.01	33.88	248	26.81	127.5	4.70	5.06	1474.
300	4.74	33.91	298	26.87	122.7	5.32	6.81	1473.
400	4.29	34.02	397	27.01	110.2	6.48	10.92	1473.
500	3.93	34.10	496	27.10	101.3	7.53	15.77	1474.
600	3.68	34.17	595	27.18	94.4	8.51	21.24	1474.
800	3.32	34.29	793	27.31	83.3	10.28	33.79	1476.
1000	2.97	34.37	990	27.41	74.9	11.85	48.20	1478.
1200	2.69	34.42	1188	27.47	69.0	13.29	64.27	1480.
1500	2.35	34.48	1484	27.55	62.3	15.23	90.99	1484.



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REFERENCE NO. 77- 3- 50

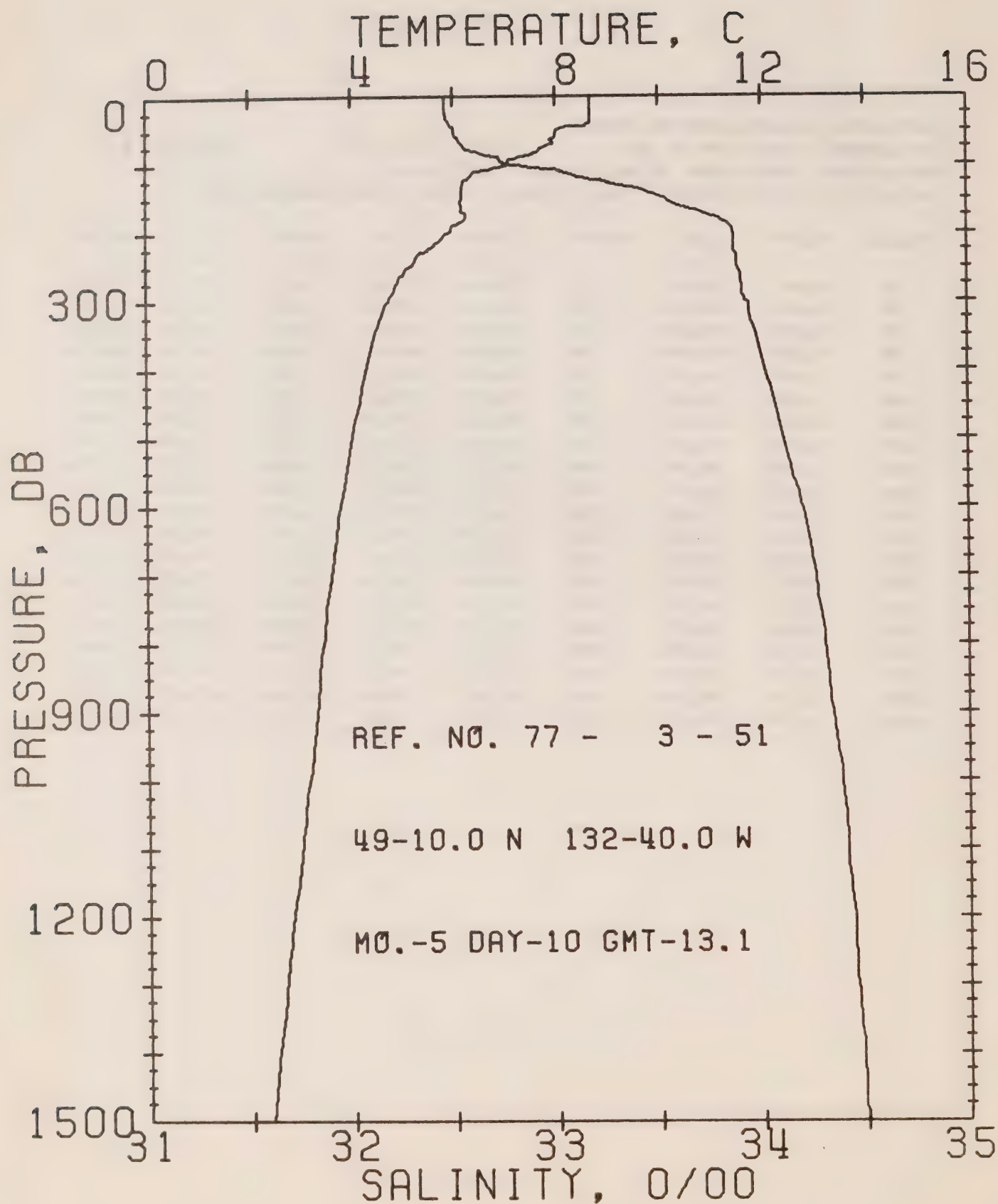
DATE 10/ 5/77

STATION 8

POSITION 49-17.0N, 134-40.0W GMT 6.7

RESULTS OF STP CAST 189 PCINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.42	32.45	0	25.24	274.2	0.0	0.0	1481.
10	8.42	32.45	10	25.24	274.6	0.27	0.01	1481.
20	8.40	32.46	20	25.25	273.9	0.55	0.06	1481.
30	8.14	32.48	30	25.30	268.7	0.82	0.13	1481.
50	7.94	32.51	50	25.35	264.0	1.35	0.34	1480.
75	7.18	32.55	75	25.49	251.2	2.00	0.75	1478.
100	7.06	32.57	99	25.52	248.4	2.63	1.31	1478.
125	6.25	33.23	124	26.15	189.3	3.19	1.95	1476.
150	5.99	33.66	149	26.52	154.3	3.61	2.55	1476.
175	5.82	33.82	174	26.67	140.6	3.98	3.15	1476.
200	5.48	33.86	199	26.74	133.9	4.32	3.81	1475.
225	5.25	33.87	223	26.78	130.7	4.65	4.52	1474.
250	4.90	33.88	248	26.83	125.9	4.97	5.30	1473.
300	4.61	33.90	298	26.87	122.0	5.59	7.03	1473.
400	4.22	34.00	397	26.99	111.1	6.75	11.15	1473.
500	3.99	34.09	496	27.09	103.1	7.82	16.05	1474.
600	3.75	34.16	595	27.17	96.0	8.81	21.62	1474.
800	3.38	34.28	793	27.30	84.2	10.62	34.46	1476.
1000	3.03	34.38	990	27.41	74.4	12.21	49.01	1478.
1200	2.74	34.44	1188	27.48	68.4	13.64	65.00	1480.



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REFERENCE NO. 77- 3- 51

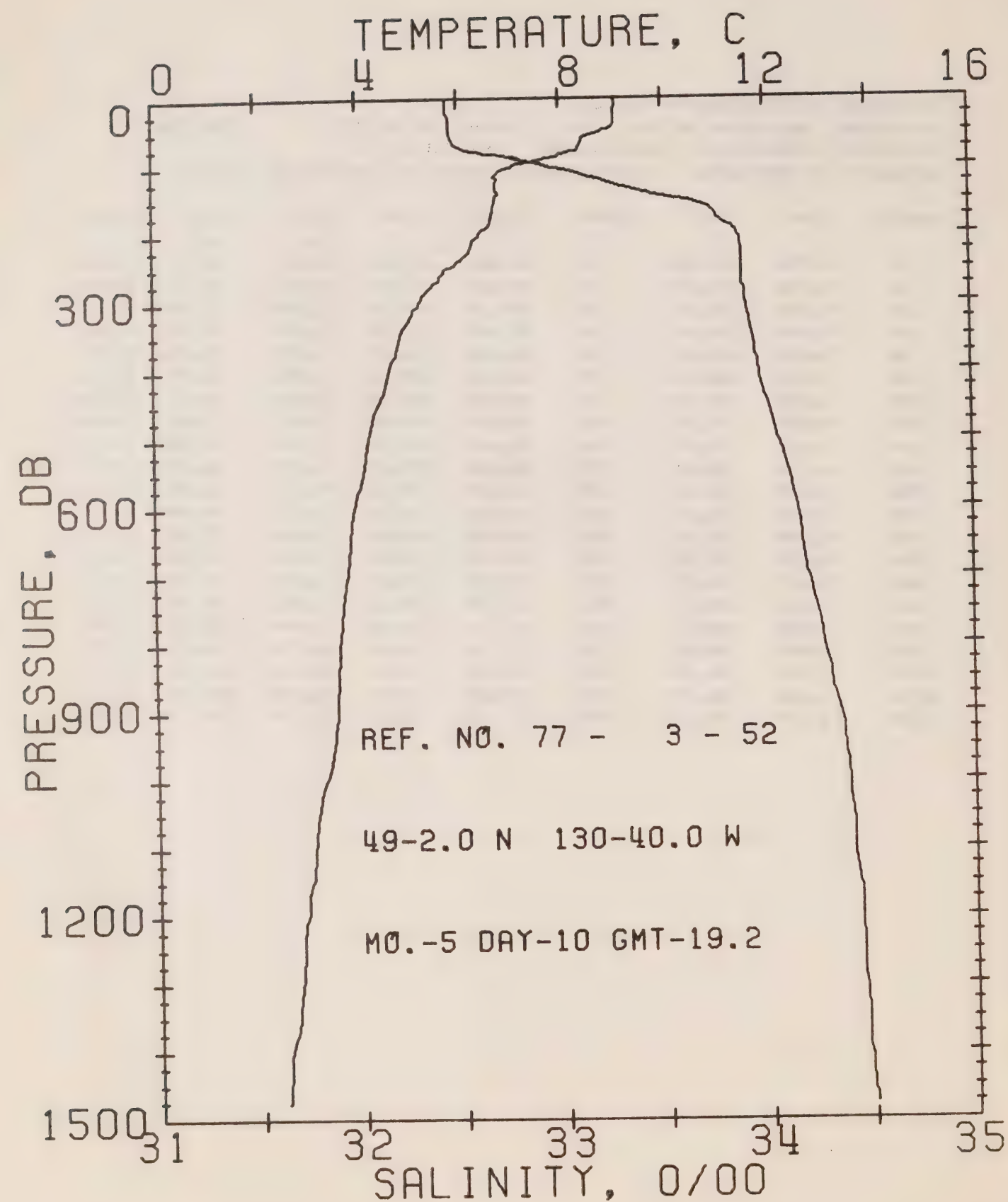
DATE 10/ 5/77

STATION 7

POSITION 49-10.0N, 132-40.0W GMT 13.1

RESULTS OF STP CAST 197 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.70	32.46	0	25.20	277.5	0.0	0.0	1482.
10	8.70	32.46	10	25.20	277.8	0.28	0.01	1482.
20	8.70	32.46	20	25.20	278.0	0.56	0.06	1483.
30	8.70	32.47	30	25.21	277.6	0.83	0.13	1483.
50	8.03	32.50	50	25.33	266.0	1.38	0.35	1481.
75	7.79	32.55	75	25.41	259.1	2.04	0.77	1480.
100	7.04	32.79	99	25.70	231.8	2.65	1.31	1478.
125	6.19	33.25	124	26.17	187.0	3.17	1.90	1476.
150	6.15	33.53	149	26.40	165.7	3.61	2.52	1476.
175	6.26	33.76	174	26.56	150.5	4.00	3.17	1477.
200	5.89	33.86	199	26.69	138.8	4.36	3.86	1476.
225	5.49	33.87	223	26.75	133.5	4.70	4.59	1475.
250	5.09	33.88	248	26.80	128.4	5.03	5.38	1474.
300	4.71	33.92	298	26.88	121.6	5.65	7.13	1473.
400	4.27	34.02	397	27.00	110.5	6.80	11.23	1473.
500	3.98	34.10	496	27.10	101.8	7.86	16.08	1474.
600	3.76	34.19	595	27.19	93.5	8.84	21.55	1475.
800	3.42	34.30	793	27.31	83.3	10.59	34.02	1477.
1000	3.13	34.38	990	27.40	75.6	12.18	48.58	1479.
1200	2.80	34.44	1188	27.48	68.6	13.63	64.77	1481.
1500	2.37	34.50	1484	27.57	61.1	15.58	91.55	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 52

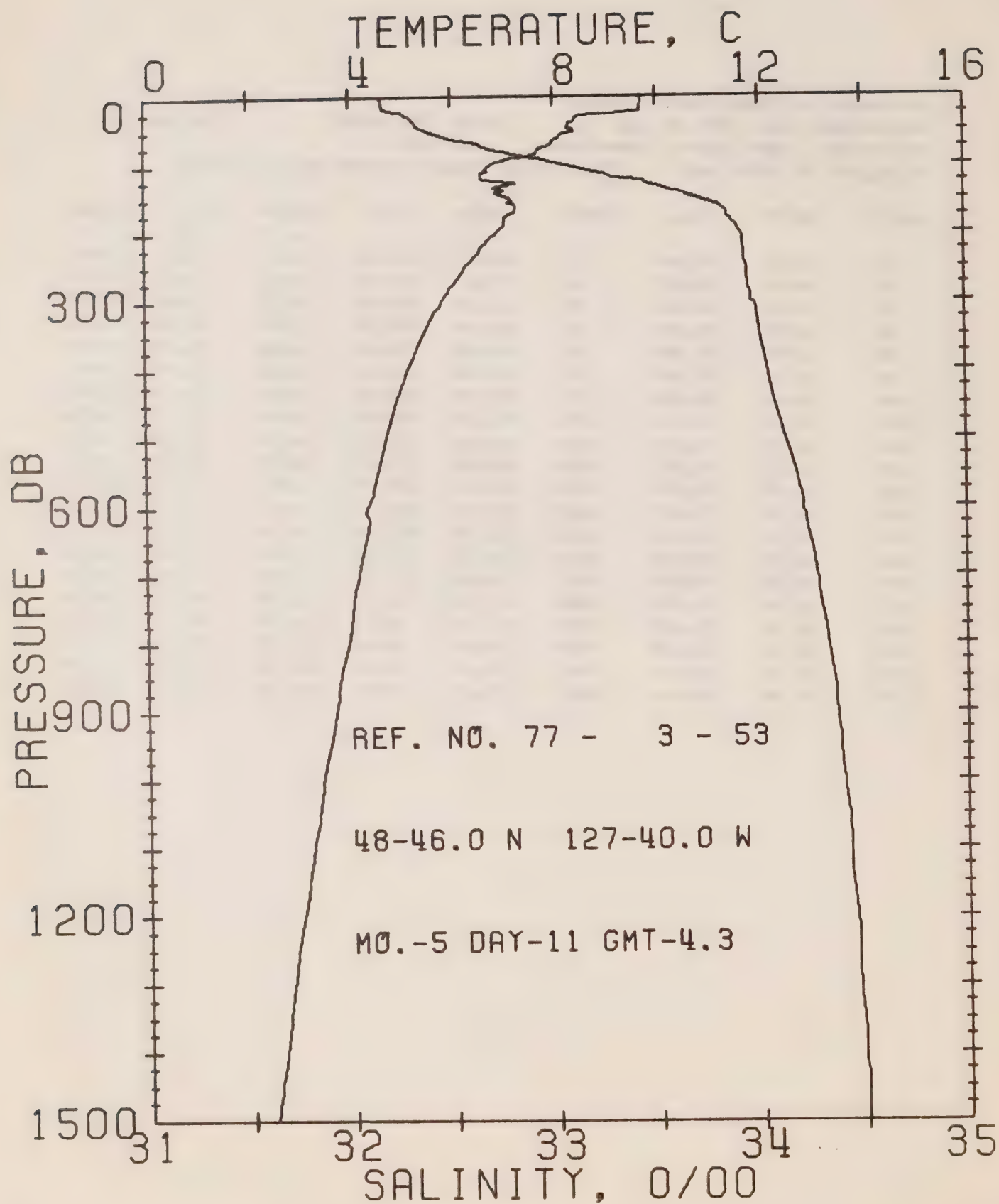
DATE 10/ 5/77

STATION 6

POSITION 49- 2.0N, 130-40.0W GMT 19.2

RESULTS OF STP CAST 231 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.10	32.45	0	25.13	284.1	0.0	0.0	1484.
10	9.11	32.45	10	25.13	284.7	0.28	0.01	1484.
20	9.10	32.45	20	25.13	284.6	0.57	0.06	1484.
30	9.09	32.46	30	25.14	283.9	0.85	0.13	1484.
50	8.83	32.46	50	25.18	280.4	1.42	0.36	1484.
75	8.35	32.54	75	25.32	268.0	2.11	0.80	1482.
100	7.08	32.93	99	25.81	221.6	2.72	1.34	1478.
125	6.74	33.25	124	26.10	194.0	3.23	1.93	1478.
150	6.73	33.60	149	26.38	168.2	3.69	2.57	1479.
175	6.65	33.77	174	26.52	154.7	4.09	3.23	1479.
200	6.40	33.87	199	26.63	144.4	4.46	3.94	1478.
225	6.21	33.89	223	26.67	140.9	4.82	4.71	1478.
250	5.74	33.89	248	26.73	135.3	5.16	5.55	1477.
300	5.20	33.90	298	26.81	128.7	5.82	7.40	1475.
400	4.61	33.97	397	26.92	118.1	7.05	11.76	1475.
500	4.18	34.05	496	27.04	107.5	8.18	16.93	1475.
600	3.89	34.15	595	27.15	98.1	9.20	22.68	1475.
800	3.58	34.27	793	27.27	87.5	11.07	35.94	1477.
1000	3.29	34.39	991	27.40	76.7	12.71	50.97	1479.
1200	2.89	34.44	1188	27.47	69.7	14.16	67.26	1481.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 53

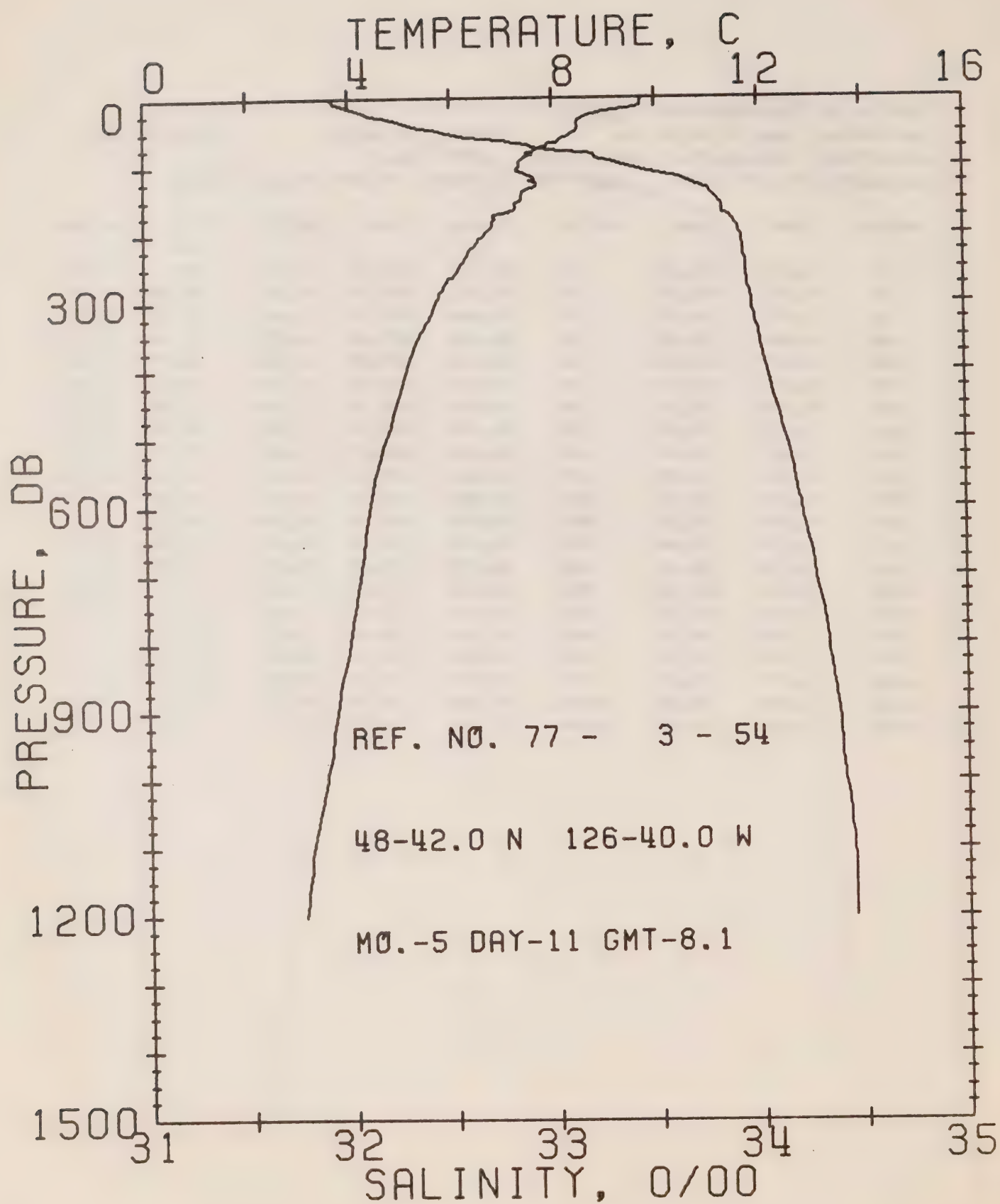
DATE 11/ 5/77

STATION 4

POSITION 48-46.0N, 127-40.0W GMT 4.3

RESULTS OF STP CAST 187 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.71	32.15	0	24.80	315.7	0.0	0.0	1486.
10	9.72	32.16	10	24.81	315.4	0.32	0.02	1486.
20	9.71	32.20	20	24.84	312.5	0.63	0.06	1486.
30	8.48	32.29	30	25.11	287.4	0.93	0.14	1482.
50	8.37	32.38	50	25.19	279.8	1.50	0.37	1482.
75	7.79	32.67	75	25.50	250.5	2.16	0.79	1480.
100	6.78	33.06	99	25.95	208.3	2.74	1.30	1477.
125	7.19	33.45	124	26.20	185.0	3.22	1.86	1480.
150	7.17	33.71	149	26.40	165.7	3.65	2.46	1480.
175	7.09	33.85	174	26.53	154.5	4.05	3.12	1481.
200	6.88	33.91	199	26.60	147.8	4.43	3.85	1480.
225	6.55	33.93	223	26.66	142.4	4.79	4.63	1480.
250	6.25	33.94	248	26.71	138.1	5.14	5.48	1479.
300	5.78	33.96	298	26.78	131.2	5.82	7.37	1478.
400	5.12	34.04	397	26.92	118.8	7.06	11.79	1477.
500	4.68	34.12	496	27.04	108.2	8.19	16.98	1477.
600	4.30	34.21	595	27.15	98.2	9.23	22.76	1477.
800	3.91	34.32	793	27.28	87.2	11.08	35.96	1479.
1000	3.40	34.40	991	27.39	77.2	12.72	50.93	1480.
1200	2.98	34.46	1188	27.48	69.6	14.19	67.39	1481.
1500	2.42	34.50	1484	27.56	61.6	16.15	94.35	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 54

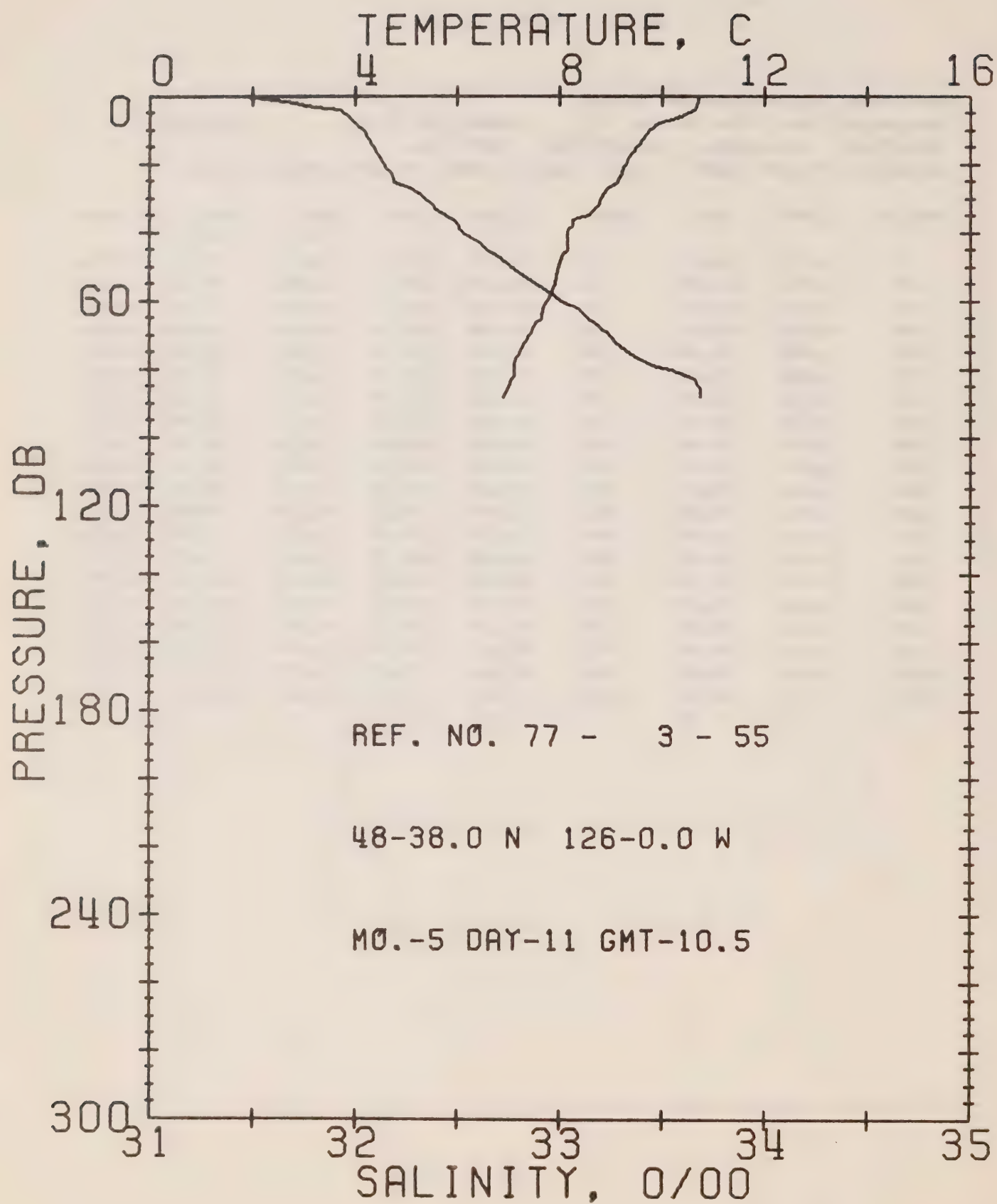
DATE 11/ 5/77

STATION 3

POSITION 48-42.0N, 126-40.0W GMT 8.1

RESULTS OF STP CAST 183 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.75	31.91	0	24.61	334.0	0.0	0.0	1486.
10	9.74	31.95	10	24.64	331.1	0.33	0.02	1486.
20	9.11	32.05	20	24.82	314.6	0.66	0.07	1484.
30	8.61	32.17	30	24.99	298.0	0.96	0.14	1482.
50	8.46	32.46	50	25.24	275.0	1.54	0.38	1482.
75	7.69	32.96	75	25.74	227.3	2.17	0.78	1480.
100	7.35	33.37	99	26.11	192.7	2.68	1.24	1480.
125	7.65	33.68	124	26.32	173.8	3.14	1.76	1482.
150	7.37	33.80	149	26.45	161.5	3.55	2.34	1481.
175	6.82	33.86	174	26.57	150.0	3.95	2.99	1480.
200	6.68	33.91	199	26.63	144.9	4.32	3.69	1480.
225	6.36	33.93	223	26.69	139.8	4.67	4.46	1479.
250	6.15	33.94	248	26.72	136.7	5.02	5.30	1478.
300	5.69	33.97	298	26.80	129.3	5.68	7.16	1477.
400	5.10	34.04	397	26.93	118.0	6.92	11.57	1477.
500	4.69	34.13	496	27.04	107.8	8.05	16.75	1477.
600	4.36	34.20	595	27.14	99.5	9.08	22.52	1477.
800	3.93	34.33	793	27.29	86.8	10.94	35.76	1479.
1000	3.46	34.40	991	27.39	77.7	12.58	50.75	1480.
1200	3.02	34.45	1188	27.47	70.5	14.04	67.08	1482.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 55

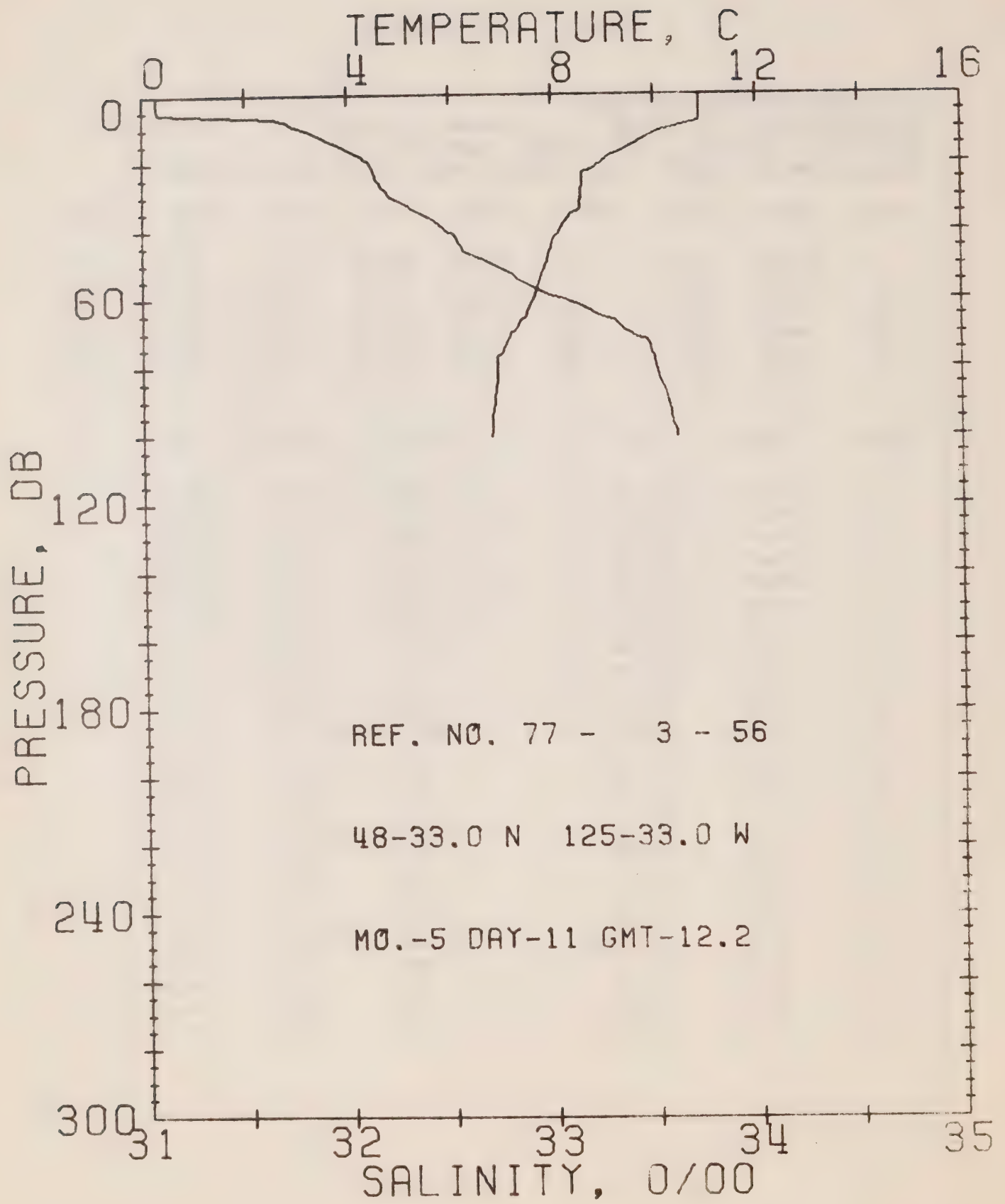
DATE 11/ 5/77 STATION 2

POSITION 48-38.0N, 126- 0.0W GMT 10.5

RESULTS OF STP CAST 50 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.72	31.46	0	24.10	382.8	0.0	0.0	1488.
10	9.77	32.04	10	24.71	325.1	0.35	0.02	1486.
20	9.32	32.14	20	24.86	311.0	0.67	0.07	1485.
30	8.83	32.34	30	25.09	289.0	0.97	0.14	1483.
50	7.99	32.76	50	25.54	246.1	1.50	0.36	1481.
75	7.22	33.34	75	26.11	192.8	2.05	0.70	1479.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	10.72	31.46	44.	8.16	32.63
1.	10.72	31.56	45.	8.15	32.65
2.	10.71	31.71	46.	8.07	32.68
3.	10.70	31.75	51.	7.97	32.78
4.	10.66	31.93	55.	7.91	32.88
6.	10.36	31.97	58.	7.83	32.97
8.	9.96	32.00	60.	7.76	33.01
10.	9.77	32.04	62.	7.69	33.09
13.	9.63	32.07	65.	7.66	33.14
17.	9.41	32.11	66.	7.54	33.17
18.	9.37	32.12	68.	7.50	33.20
20.	9.32	32.14	69.	7.46	33.23
21.	9.24	32.15	72.	7.33	33.27
23.	9.23	32.18	75.	7.22	33.34
25.	9.14	32.19	76.	7.19	33.36
27.	8.96	32.27	77.	7.14	33.39
29.	8.85	32.32	79.	7.13	33.45
32.	8.78	32.38	80.	7.12	33.54
33.	8.73	32.39	82.	7.12	33.63
35.	8.59	32.44	83.	7.08	33.66
36.	8.26	32.48	84.	7.04	33.67
38.	8.26	32.51	85.	7.02	33.68
39.	8.20	32.51	86.	6.98	33.69
40.	8.17	32.53	87.	6.95	33.69
43.	8.16	32.61	88.	6.90	33.69



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 3- 56

DATE 11/ 5/77

STATION 1

POSITION 48-33.0N, 125-33.0W GMT 12.2

RESULTS OF STP CAST 52 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.91	31.07	0	23.76	414.8	0.0	0.0	1489.
10	10.38	31.77	10	24.39	354.8	0.40	0.02	1488.
20	8.98	32.11	20	24.89	308.1	0.72	0.07	1483.
30	8.59	32.21	30	25.02	295.2	1.02	0.15	1482.
50	7.88	32.71	50	25.52	248.1	1.57	0.37	1480.
75	7.05	33.48	75	26.24	179.8	2.10	0.70	1478.
100	6.81	33.61	99	26.37	167.7	2.53	1.08	1478.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	10.91	31.07	49.	7.91	32.68
3.	10.91	31.07	53.	7.80	32.81
4.	10.91	31.07	54.	7.78	32.83
5.	10.91	31.08	59.	7.68	32.99
7.	10.90	31.64	60.	7.65	33.06
8.	10.90	31.71	62.	7.58	33.15
9.	10.65	31.72	65.	7.48	33.24
11.	10.11	31.82	66.	7.41	33.30
14.	9.70	31.93	69.	7.32	33.35
16.	9.46	32.00	70.	7.21	33.39
18.	9.15	32.07	71.	7.20	33.40
20.	8.98	32.11	72.	7.14	33.47
22.	8.80	32.12	74.	7.09	33.48
23.	8.62	32.13	76.	7.01	33.49
25.	8.61	32.14	77.	6.94	33.50
30.	8.59	32.21	78.	6.94	33.50
32.	8.57	32.28	83.	6.92	33.52
34.	8.55	32.33	84.	6.92	33.53
35.	8.41	32.36	86.	6.91	33.55
37.	8.30	32.42	90.	6.88	33.57
38.	8.24	32.45	93.	6.85	33.58
40.	8.16	32.48	94.	6.84	33.58
41.	8.12	32.52	96.	6.83	33.59
42.	8.06	32.53	98.	6.82	33.60
46.	7.98	32.57	99.	6.82	33.61
47.	7.96	32.60	100.	6.81	33.61

Surface Salinity and Temperature Observations

(P-77-3)

SURFACE SALINITY AND TEMPERATURE OBSERVATIONS
CRUISE REFERENCE NUMBER 77- 3

DATE/TIME				SALINITY	TEMP	LONGITUDE
YR	MO	DAY	GMT	0/00	C	WEST
77	3	25	2330	32.308	8.5	125-33
77	3	26	130	31.161	8.3	126- 0
77	3	26	340	31.538	8.3	126-40
77	3	26	745	32.439	8.5	127-40
77	3	26	1135	32.386	8.3	128-40
77	3	26	1540	32.459b	8.5	129-40
77	3	26	1850	32.404	8.3	130-40
77	3	26	2340	32.493b	8.4	131-40
77	3	27	340	32.421b	7.9	132-40
77	3	27	750	32.381b	7.8	133-40
77	3	27	1140	32.529b	7.2	134-40
77	3	27	1550	32.519b	7.0	135-40
77	3	27	1920	32.575b	6.9	136-40
77	3	27	2230	32.582b	6.7	137-40
77	3	28	150	32.624b	6.4	138-40
77	3	28	445	32.621b	6.3	139-40
77	3	28	730	32.681b	6.0	140-40
77	3	28	1035	32.682b	6.1	141-40
77	3	28	1400	32.709	5.7	142-40
77	3	28	1900	32.716b	5.2	143-40
77	3	29	0	32.709	5.5	ON STATION
77	3	30	0	32.712	5.4	ON STATION
77	3	31	0	32.714	5.6	ON STATION
77	4	1	0	32.714	5.5	ON STATION
77	4	2	0	32.716	5.5	ON STATION
77	4	3	0	32.706	5.6	ON STATION
77	4	4	0	32.730b	5.4	ON STATION
77	4	5	0	32.726b	5.5	ON STATION
77	4	6	0	32.706	5.4	ON STATION
77	4	7	0	32.706	5.5	ON STATION
77	4	8	0	32.723b	5.0	ON STATION
77	4	9	0	32.705	5.3	ON STATION
77	4	10	0	32.756b	5.0	ON STATION
77	4	11	0	32.750b	4.8	ON STATION
77	4	12	0	32.741b	4.8	ON STATION
77	4	13	0	32.762b	4.8	ON STATION
77	4	14	0	32.714b		ON STATION
77	4	15	0	32.714b		ON STATION
77	4	16	0	32.724b		ON STATION
77	4	16	300	32.711b	5.3	143-45
77	4	16	600	32.711b	5.2	143- 0
77	4	16	900	32.699b	5.7	142-17
77	4	16	1200	32.674b	6.0	141-45
77	4	16	1500	32.667b	6.1	141- 0

SURFACE SALINITY AND TEMPERATURE OBSERVATIONS
CRUISE REFERENCE NUMBER 77- 3

DATE/TIME				SALINITY	TEMP	LONGITUDE
YR	MO	DY	GMT	0/00	C	WEST
77	4	16	1800	32.656b	6.0	140-12
77	4	16	2100	32.633b	6.2	139-22
77	4	17	0	32.650b	6.2	138-36
77	4	17	300	32.612b	6.5	137-44
77	4	17	600	32.567	6.6	136-58
77	4	17	900			136-12
77	4	17	1200			135-25
77	4	17	1500	32.508		134-45
77	4	17	1800	32.371	7.5	133-58
77	4	17	2100	32.365	7.5	133- 7
77	4	18	0	32.378	7.6	132-26
77	4	18	300	32.298	7.7	131-27
77	4	18	600	32.243	7.8	130-42
77	4	18	900	32.037	7.9	130- 0
77	4	18	1200	31.694	7.8	129-10
77	4	18	1500	31.824	7.8	128-19
77	4	19	800	31.803	7.7	128-30
77	4	19	1100	31.738b	7.5	129-10
77	4	19	1400	31.962b	8.0	129-52
77	4	19	1700	32.311b	8.0	130-30
77	4	19	2000	32.234b	8.0	131-15
77	4	19	2300	32.307b	7.8	131-54
77	4	20	200	32.406	7.6	132-30
77	4	20	500	32.371	7.6	133-13
77	4	20	800	32.369	7.5	133-50
77	4	20	1100	32.491	7.0	134-20
77	4	20	1400	32.506	7.1	135- 6
77	4	20	1700	32.499	6.7	135-50
77	4	20	2000	32.516	6.6	136-28
77	4	20	2300	32.555	6.8	137- 9
77	4	21	200	32.610	6.5	137-50
77	4	21	500	32.665	5.7	138-22
77	4	21	800	32.639	6.1	139-12
77	4	21	1100	32.651	5.9	140- 0
77	4	21	1400	32.658	5.6	140-34
77	4	21	1700	32.657	6.0	141-15
77	4	21	2000	32.693	5.9	141-47
77	4	21	2300	32.699	5.5	142-30
77	4	22	200	32.620	5.2	142-42
77	4	22	500	32.719	5.1	143-33
77	4	22	800	32.693	5.3	143-58
77	4	23	0	32.723	5.3	ON STATION
77	4	24	0	32.712	5.6	ON STATION
77	4	25	0	32.718	5.8	ON STATION

SURFACE SALINITY AND TEMPERATURE OBSERVATIONS
CRUISE REFERENCE NUMBER 77- 3

DATE/TIME				SALINITY	TEMP	LONGITUDE
YR	MO	DAY	GMT	0/00	C	WEST
77	4	26	0	32.716	5.6	ON STATION
77	4	27	0	32.725	5.7	ON STATION
77	4	28	0	32.709	5.7	ON STATION
77	4	29	0	32.719	5.6	ON STATION
77	4	30	0	32.769	5.7	ON STATION
77	5	1	0	32.764	5.5	ON STATION
77	5	2	0	32.716		ON STATION
77	5	3	0	32.712b		ON STATION
77	5	4	0	32.771b	5.5	ON STATION
77	5	5	0	32.722	5.5	ON STATION
77	5	6	0	32.723	5.6	ON STATION
77	5	7	0	32.720	5.6	ON STATION
77	5	8	0	32.734	5.6	ON STATION
77	5	9	0	32.719		ON STATION
77	5	9	130	32.716	6.0	143-40
77	5	9	610	32.709	6.5	142-40
77	5	9	1030	32.655	6.8	141-40
77	5	9	1300	32.673	6.7	140-40
77	5	9	1520	32.633	6.7	139-40
77	5	9	1800	32.622	6.9	138-40
77	5	9	2140	32.594	7.2	137-40
77	5	10	25	32.579	7.6	136-40
77	5	10	345	32.526	7.8	135-40
77	5	10	630	32.464	8.2	134-40
77	5	10	1015	32.421	8.6	133-40
77	5	10	1300	32.490	8.6	132-40
77	5	10	1625	32.509	8.9	131-40
77	5	10	1905	32.490	9.0	130-40
77	5	10	2250	32.450	9.2	129-40
77	5	11	125	32.358	9.2	128-40
77	5	11	410	32.151	9.5	127-40
77	5	11	800	31.938	9.6	126-40
77	5	11	1030	31.389	10.5	126- 0
77	5	11	1205	31.164	10.7	125-33

b DENOTES SALINITY SAMPLE TAKEN FROM A
BUCKET. ALL OTHER SAMPLES TAKEN FROM
THE SEAWATER LOOP

List of Omissions from Data

Hydrographic data:

Consec. #	Depth (m)	Temp.	Sal.	O ₂	Notes			Comments
					1.	2.	3.	
9	1081			*		*		Leaking bottle noted
	1081		*			*		
	3817		*		*			
	3817			*		*		
	3901		*		*			
16	770		*			*		Leaking bottle noted
	770			*		*		
	911		*			*		
	911			*		*		
	2090		*		*			
26	3877		*			*		
	3877			*		*		
28	2945		*				*	
	3436		*			*		
	3436			*		*		
35	1953		*			*		
	3463		*		*			
42	4159		*			*		
	4159			*		*		

Notes (MacNeill, 1977):

1. The data is suspect because of a reversal of gradient by $>.01^{\circ}/\text{oo}$ (salinity) or $>.08 \text{ ml}/\ell$ (oxygen).
2. The data is deleted because of very irregular data values (usually a mis-tripping or leaking bottle if both oxygen and salinity are irregular).
3. The data is deleted because duplicate samples at a depth were not within $.01^{\circ}/\text{oo}$ (salinity) or $.08 \text{ ml}/\ell$ (oxygen).

STD Data:

Consecutive #	Comments
4	Deep salinity not included; traces too erratic
13	Deep salinity not included; traces too erratic
37	Not included; traces too erratic
47	1000 - 1300 m not included; traces too erratic below 1000 m.

CAI
EP 321
-77R18

**OCEANOGRAPHIC OBSERVATIONS
AT OCEAN STATION P
(50°N, 145°W)**

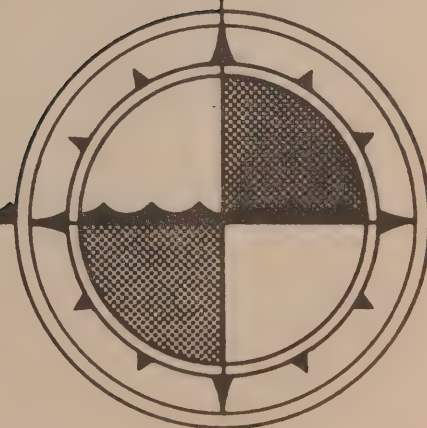
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by



Seakem Oceanography Ltd.

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Sidney, B.C.**



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OCEANOGRAPHIC OBSERVATIONS AT OCEAN STATION P (50°N, 145°W)

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by

Seakem Oceanography Ltd.

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ABSTRACT

Physical, chemical and biological oceanographic observations are made from the weathership at Ocean Weather Station Papa, and between Esquimalt and Station Papa, on a routine continuing basis. Physical oceanography data only are shown, including surface observations and profiles obtained with bottle casts and conductivity-temperature-pressure instruments.

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INTRODUCTION

Canadian operation of Ocean Weather Station P (Latitude $50^{\circ}00'N$, Longitude $145^{\circ}00'W$) was inaugurated in December, 1950. The station is occupied primarily to make meteorological observations of the surface and upper air and to provide an air-sea rescue service. The station is manned by two vessels operated by the Marine Services Branch of the Ministry of Transport. They are the CCGS Vancouver and the CCGS Quadra. Each ship remains on station for a period of six weeks, and is then relieved by the alternate ship, thus maintaining a continuous watch.

Bathythermograph observations have been made at Station P since July 1952. A program of more extensive oceanographic observations commenced in August 1956. This was extended in April 1959, by the addition of a series of oceanographic stations along the route to and from Station P and Swiftsure Bank. These stations are known as Line P stations. The number of stations on Line P has been increased twice and now consists of twelve stations (Fig. 1). Bathythermograph observations and surface salinity sample collections, in addition to being made on Line P oceanographic stations, are also made at odd meridians at $40'$, i.e. $139^{\circ}40'W$, $141^{\circ}40'W$, etc. These stations are known as Line P BT stations. Data observed prior to 1968 have been indexed by Collins et al (1969).

The present record includes hydrographic, continuously sampled STP and surface salinity and temperature data collected from the CCGS Quadra during the period 6 May to 23 June 1977.

All physical oceanographic data have been stored by the Canadian Oceanographic Data Centre (CODC), 615 Booth Street, Ottawa, Ontario, Canada. Requests for these data should be directed to CODC.

Biological and productivity data are published in the Manuscript Report series of the Fisheries Research Board of Canada (FRB), Pacific Biological Station, Nanaimo, British Columbia, Canada. Requests for these data should be directed to FRB.

Marine geochemical data are for the Ocean Chemistry Group, Ocean and Aquatic Sciences, Environment Canada, Institute of Ocean Sciences, Patricia Bay, P.O. Box 5000, Sidney, B.C. V8L 4B2

PROGRAM OF OBSERVATION FROM CCGS QUADRA, 6 MAY - 23 JUNE 1977 (P-77-4)
(CODC Ref. No. 15-77-004)

Oceanographic observations were made by Mr. B. Whitehouse and Mr. T. Juhasz of Seakem Oceanography Ltd., Victoria, B.C.

En Route to Station P

Line P Stations 1 to 11 were occupied and an STP profile made to near bottom or 1500 metres. One hydrocast to 1500 m was done at Station 10.

Samples for salinity, nitrate, nutrient, alkalinity and total CO_2 were taken from the seawater loop at all whole stations with salinity also taken at all half stations. Surface bucket salinities were taken at all whole stations. Surface bucket temperatures were taken at all whole stations, except Station 12.

Surface tarball tows were made at Stations 2, 4, 6, 8 and 10.

The thermosalinograph, surface temperature recorder and PCO_2 system were run continuously.

Mechanical BT's or XBT's were taken at all whole and half stations.

On Station P

The oceanographic program was carried out as follows:

Physical Oceanography

- 1) Profiles of salinity, temperature and oxygen were obtained from 3 hydrographic casts to near bottom (4200 metres) (one cast was to 600 m only).
- 2) 12 STP profiles to 1500 metres and 21 to 300 metres were obtained.
- 3) BT's or XBT's were taken every three hours to coincide with meteorological observations, encoded and transmitted according to the IGOSS format.
- 4) Salinity samples were collected daily at 0000 hrs GMT from the seawater loop.

Marine Geochemistry

- 1) Nutrient and salinity samples were collected daily at 0000 hrs GMT from the seawater loop. One 24 hour series of nutrient samples was taken each hour from the seawater loop. Two profiles for nutrients to 500 m and one profile for tritium to 500 m were taken. One loop sample, one bucket sample and one rainwater sample were also collected for tritium.
- 2) Alkalinity and total CO_2 samples were taken every 3 days from the seawater loop or bucket and in addition, 2 profiles each to 500 m were taken.
- 3) Air CO_2 samples were taken in quadruplicate at weekly intervals.

- 4) 6 surface tarball tows were completed.
- 5) 3 seawater C-14 samples were extracted from 45 gallons of seawater taken from the seawater loop along with 3 seawater C-13 and 3 Air C-13 samples.
- 6) PCO_2 carboys were filled every 3 days when the loop system was operational.
- 7) 1 profile to 4200 m for mercury was obtained.
- 8) 6 hydrocarbon samples were obtained (one only from the Blumer Sampler).
- 9) 1 profile for mercury was obtained.

Biological Oceanography

Samples were obtained as follows:

- 1) 28 - 150 metre vertical plankton hauls.
2 - 1200 metre vertical plankton hauls.
3 groups of subsurface plankton hauls were taken on 3 consecutive nights at sunset. (9 tows in total).
- 2) 2 profiles to 200 metres for each of plant pigment and nitrates were obtained, as well as 5 surface samples each.
- 3) 6 Secchi disc readings were obtained.
- 4) 2 profiles to 75 m for chlorophyll "a" were obtained.

En Route from Station P

An STP profile was made at Stations 12 to 8 and 6 to 1. One hydrocast was done at Station 10. Nutrient, nitrate, alkalinity and total CO_2 samples were taken from the seawater loop at all whole stations. Salinity samples were taken at all whole and half stations. Surface bucket temperatures were taken at all whole stations, except for Station 7. Tarball tows were taken at Stations 12, 10, 8, 6, 4 and 2. Mechanical BT's or XBT's were taken at all whole and half stations.

Observations for Other Agencies

- 1) Marine mammal observations were made by the ship's officers for Mr. I. McAskie, Fisheries Research Board of Canada, Pacific Biological Station, Nanaimo, B.C., Canada.
- 2) Bird observations were made by the ship's officers for Dr. M. Myres, University of Alberta, Calgary, Alberta, Canada and Mr. J. Guiguet, Curator of Birds and Mammals, Provincial Museum, Department of Provincial Secretary and Travel Industry, Victoria, British Columbia, Canada.
- 3) Air CO_2 samples were taken weekly in duplicate for Scripps Institution of Oceanography, La Jolla, California, U.S.A.

Data were processed for publication by Ms. M. Sainsbury of Seakem Oceanography Ltd., Victoria, B.C.

OBSERVATIONAL PROCEDURES

Observations for salinity, oxygen and temperature from all hydrographic casts, including the surface, were obtained with Niskin water sample bottles equipped with either Richter and Wiese and/or Yoshino Keiki Co. reversing thermometers. Two protected thermometers were used on all bottles and one unprotected thermometer was used on each bottle at depths of 300 m or greater.

The daily surface water temperatures were measured from a bucket sample using a deck thermometer of $\pm 0.1^\circ\text{C}$ accuracy. The daily surface salinity samples were obtained from the seawater loop. When the seawater loop was not operational these samples were obtained with a bucket, and are indicated with a 'b' in this data record.

Salinity determinations were made aboard ship with either an Autolab Model 601 Mark III inductive salinometer or a Hytech Model 6220 lab salinometer. Accuracy using duplicate determinations is estimated to be $\pm 0.003^\circ/\text{oo}$.

Depth determinations were made using the "depth difference" method described in the U. S. N. Hydrographic Office Publication No. 607 (1955). Depth estimates have an approximate accuracy of ± 5 m for depths less than 1000 m, and $\pm 0.5\%$ of depth for depths greater than 1000 m.

The dissolved oxygen analyses were done in shipboard laboratory by a modified Winkler method (Carpenter, 1955).

Line P engine intake continuous temperature on both ships were recorded by a Honeywell Electronik 15 Recorder. The temperature probe is at a depth of approximately 3 metres below the sea surface and the instrument accuracy is believed to be $\pm 0.1^\circ\text{C}$.

Each ship is equipped with a Plessey Model 6600-T thermosalinograph which is used, on Line P, for continuous recording of surface temperatures and salinities from the ship's seawater loop. The temperature probe is mounted at the seawater loop intake (approximately 3 metres below the surface) and the salinity probe and recorder are situated in the dry lab. The accuracy of this instrument is believed to be $\pm 0.1^\circ\text{C}$ for temperature and $\pm 0.1^\circ/\text{oo}$ for salinity.

STP profiles were taken with a Plessey Model 9006 STD system.

COMPUTATIONS

All hydrographic data were processed with the aid of an IBM 370 computer and a UNIVAC 1100 computer. Reversing thermometer temperature corrections, thermometric depth calculations and accepted depth from the "depth difference" method were computed. Extraneous thermometric depths caused by thermometer malfunctions were automatically edited and replaced. A Calcomp 565 Offline Plotter was used to plot temperature-salinity and temperature-oxygen diagrams, as well as plots of temperature, salinity and dissolved oxygen vs \log_{10} depth. These plots were used to check the data for errors.

Missing hydrographic data were obtained using a weighted parabolas interpolation method (Reiniger and Ross, 1968). These data are indicated with an asterisk in this data record.

Data values which we suspect but which we have included in this data record are indicated with a plus. These data have been removed from punch card and magnetic tape records.

Analog records from the salinity-temperature-pressure instrument have been machine digitized, then replotted using the Calcomp plotter.

Digitization was continued until original and computer plotted traces were coincident. Temperature and salinity values were listed at standard pressures; integrals (depths, geopotential anomaly, and potential energy anomaly) were computed from the entire array of digitized data.

The headings for the data listings are explained as follows:

PRESS	is pressure (decibars)
TEMP	is temperature (degrees Celsius)
SAL	is salinity (parts per thousand)
DEPTH	is reported in metres
SIGMA-T	is specific gravity anomaly
SVA	is specific volume anomaly
THETA	is potential temperature (degrees Celsius)
SVA (THETA)	is potential specific volume anomaly
DELTA D	is geopotential anomaly (J/kg)
POT EN	is potential energy in units of 10^8 ergs/cm ²
OXY	is the concentration of dissolved oxygen expressed in millilitres per litre
SOUND	is the velocity of sound in m/sec

REFERENCES

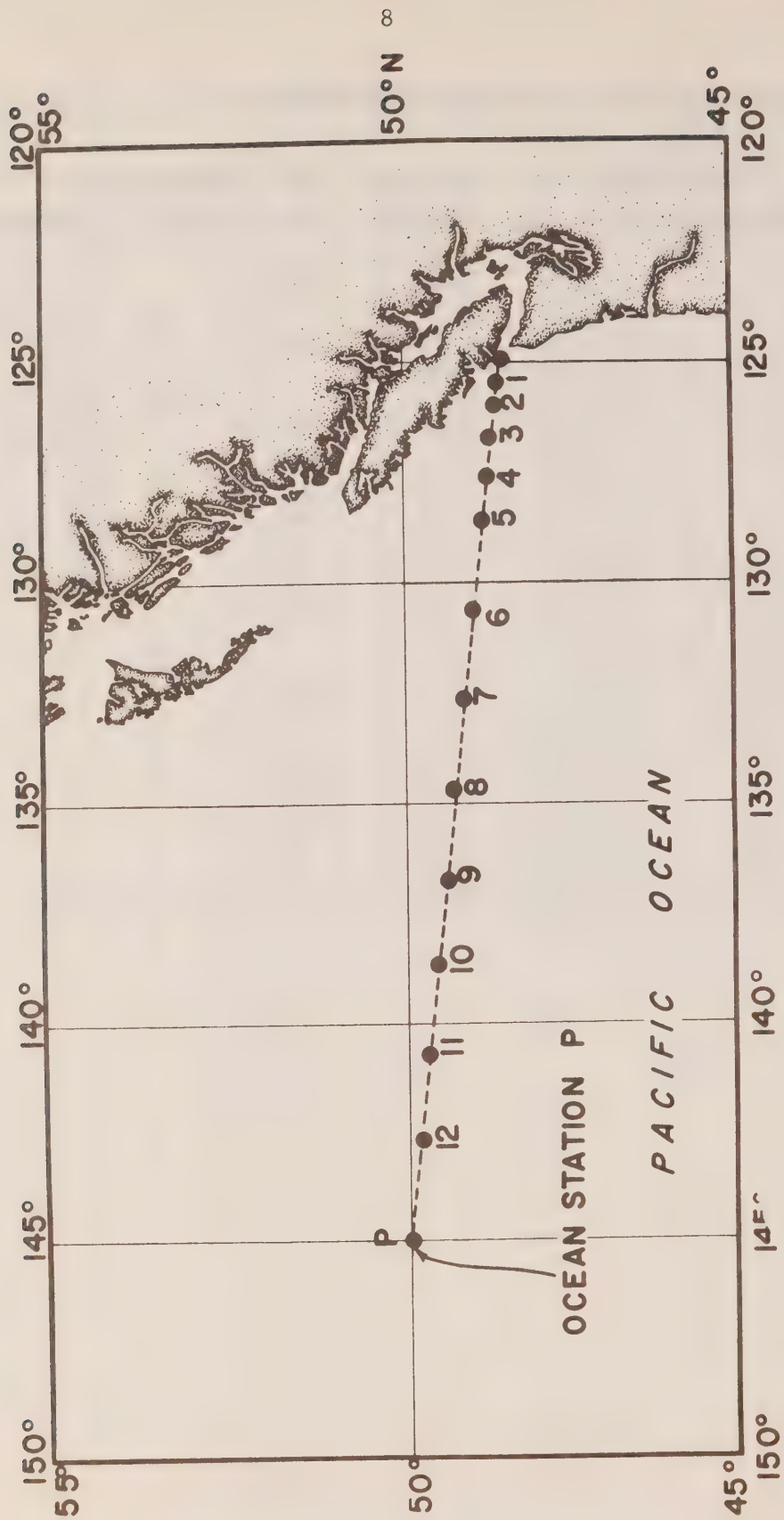
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LOG OF HYDROGRAPHIC AND STD OBSERVATIONS

CONSEC. #	STATION	DATE (GMT)	TIME (GMT)	STD (m)	HYDROCAST (m)	COMMENTS
001	125-33 ^{OW}	6/05/77	2215	80		
002	126-00 ^{OW}	6/05/77	2350	80		
003	126-40 ^{OW}	7/05/77	0230	1,200		
004	127-40 ^{OW}	7/05/77	0620	300		
005	128-40 ^{OW}	7/05/77	0945	300		
006	130-40 ^{OW}	7/05/77	1635	1,500		
007	132-40 ^{OW}	7/05/77	2340	1,500		
008	134-40 ^{OW}	8/05/77	0610	1,500		
009	136-40 ^{OW}	8/05/77	1320	1,500		
010	138-40 ^{OW}	8/05/77	1945	1,500		
011	138-40 ^{OW}	8/05/77	2055		1,500	T, S
012	140-40 ^{OW}	9/05/77	0405	1,500		
013	P	10/05/77	1735	300		
014	P	10/05/77	1845		200	Biological Cast
015	P	11/05/77	1725	300		
016	P	11/05/77	1800		500	Alk. & CO ₂
017	P	14/05/77	1730	1,500		
018	P	14/05/77	1835		500	Nutrient
019	P	15/05/77	1715	300		
020	P	16/05/77	1720	1,500		O(T,S) 1500(T,S)
021	P	17/05/77	1725	300		
022	P	18/05/77	1720	1,300		
023	P	19/05/77	1720	1,500		
024	P	19/05/77	1810		600	T, O ₂ , S
025	P	23/05/77	1725	1,500		
026	P	23/05/77	1840		4,200	T, O ₂ , S
027	P	24/05/77	1715	300		
028	P	27/05/77	1720	1,500		
029	P	27/05/77	1815		4,200	Mercury Profile
030	P	28/05/77	1725	300		
031	P	29/05/77	1715	300		
032	P	30/05/77	1715	1,500		
033	P	31/05/77	1710	300		
034	P	31/05/77	1735		500	Alk. & CO ₂
035	P	1/06/77	1715	300		
036	P	2/06/77	1715	300		
037	P	2/06/77	1755		500	Nutrient
038	P	3/06/77	1715	1,500		
039	P	3/06/77	1810		4,200	T, O ₂ , S
040	P	4/06/77	1715	300		
041	P	5/06/77	1715	300		
042	P	6/06/77	1720	1,500		O(T,S) 1500(T,S)
043	P	7/06/77	1715	300		O(T,S) 300(T,S)
044	P	8/06/77	1715	300		
045	P	9/06/77	1710	300		
046	P	10/06/77	1715	1,500		
047	P	11/06/77	1710	300		

LOG OF HYDROGRAPHIC AND STD OBSERVATIONS (Continued)

CONSEC. #	STATION	DATE (GMT)	TIME (GMT)	STD (m)	HYDROCAST (m)	COMMENTS
048	P	12/06/77	1715	300		
049	P	12/06/77	1735		200	Biological Cast
050	P	13/06/77	1710	1,500		
051	P	13/06/77	1800		3,000	Alk.
052	P	13/06/77	1945		3,000	Alk.
053	P	14/06/77	1720	300		O(T,S) 300(T,S)
054	P	16/06/77	1710	300		
055	P	17/06/77	1715	1,500		
056	P	18/06/77	1720	300		
057	P	19/06/77	1715	300		
058	142-40°W	20/06/77	0710	1,500		
059	140-40°W	20/06/77	1510	1,500		
060	138-40°W	20/06/77	2235	1,500		
061	138-40°W	20/06/77	2320		1,500	T, S
062	136-40°W	21/06/77	0705	1,500		
063	134-40°W	21/06/77	1415	300		
064	130-40°W	22/06/77	0310	1,500		
065	128-40°W	22/06/77	1215	1,500		
066	127-40°W	22/06/77	1705	1,500		
067	126-40°W	22/06/77	2230	1,100		
068	126-00°W	23/06/77	0140	80		
069	125-33°W	23/06/77	0405	80		



. 1 Chart showing Line P station positions.

Oceanographic Data Obtained on Cruise P-77-4

(CODC Reference No. 15-77-004)

Results of Hydrographic Observations

(P-77-4)

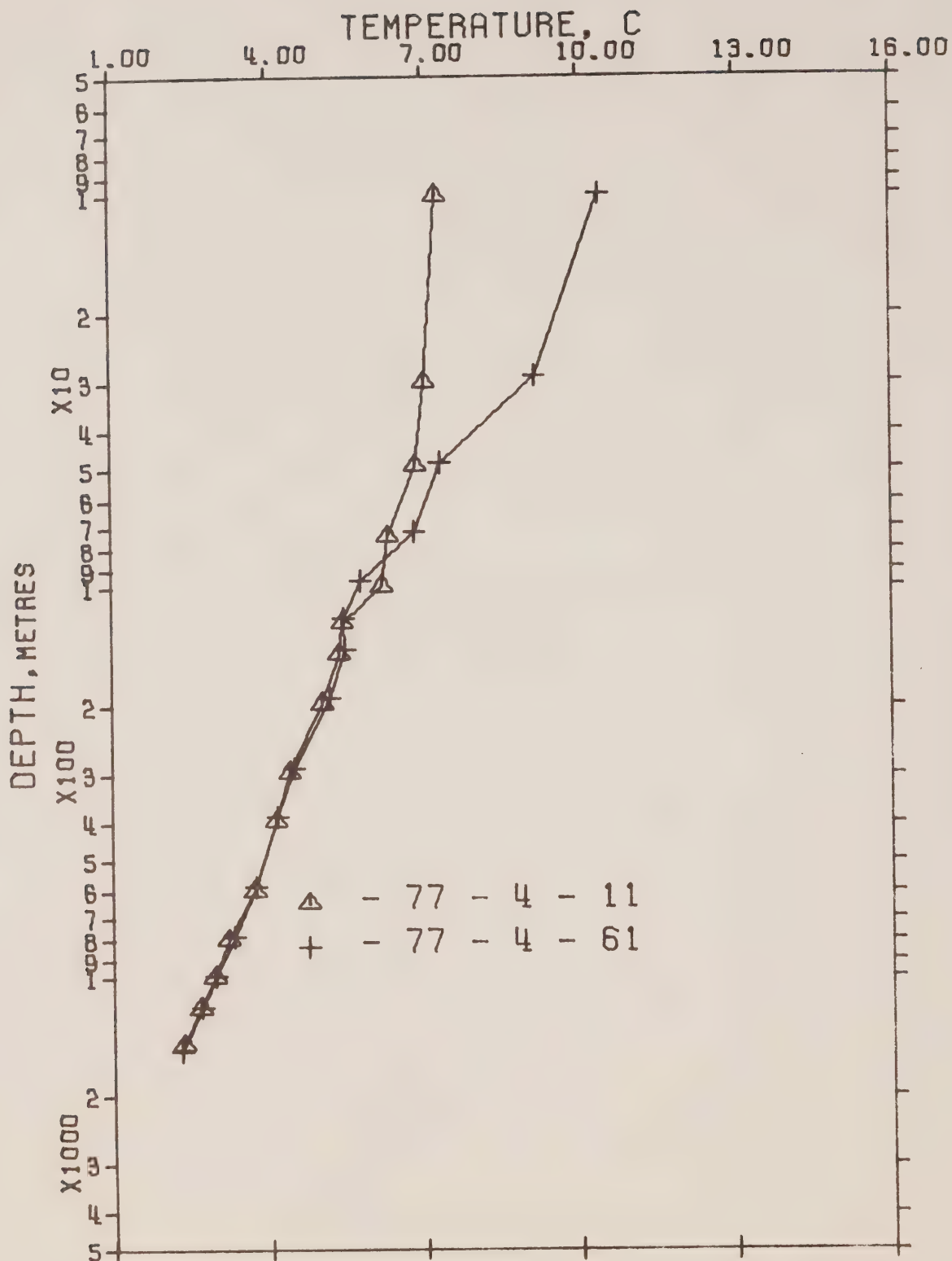


Figure 2. Composite plot of temperature vs \log_{10} depth for Line P stations. P-77-4.

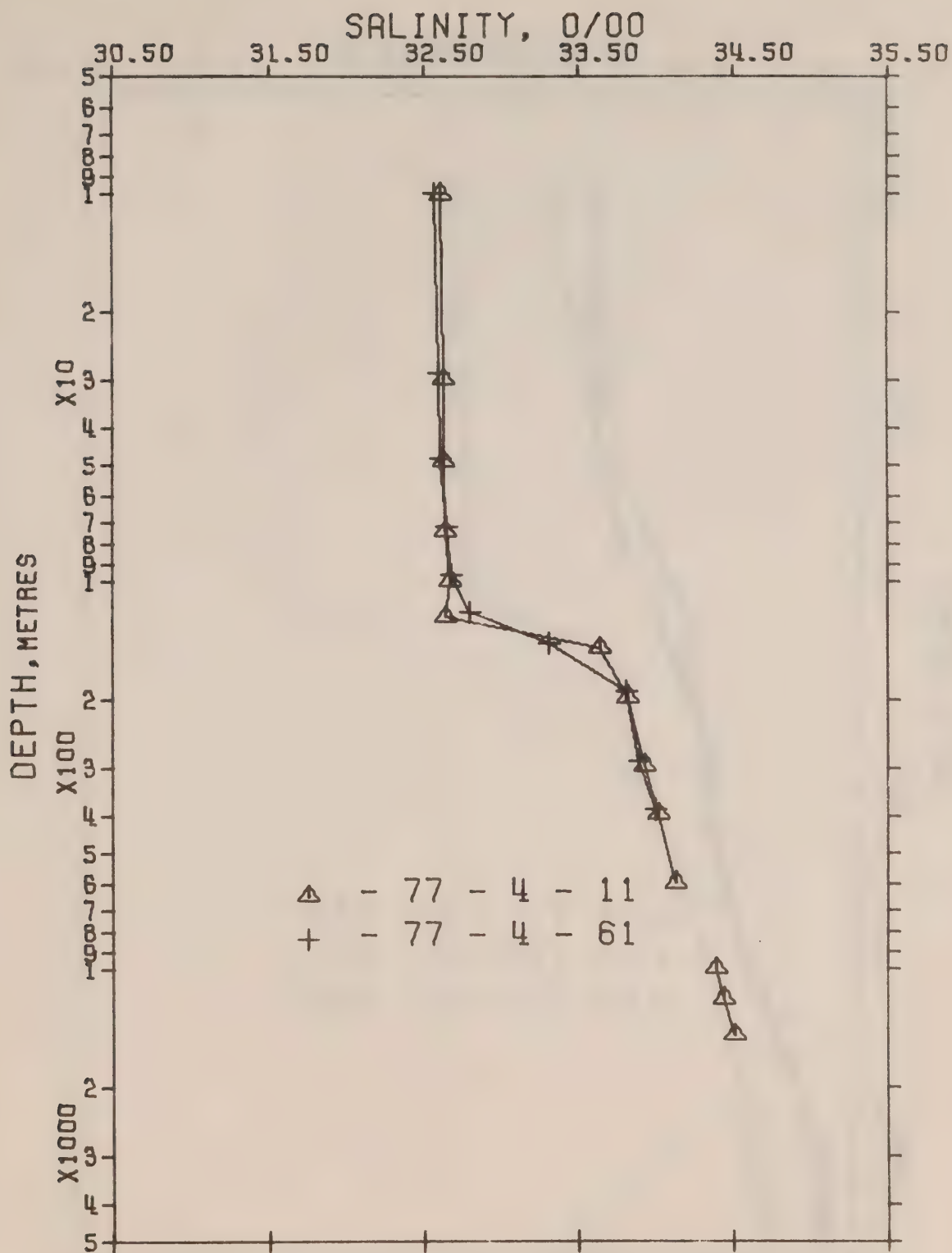


Figure 3. Composite plot of salinity vs \log_{10} depth for Line P stations. P-77-4.

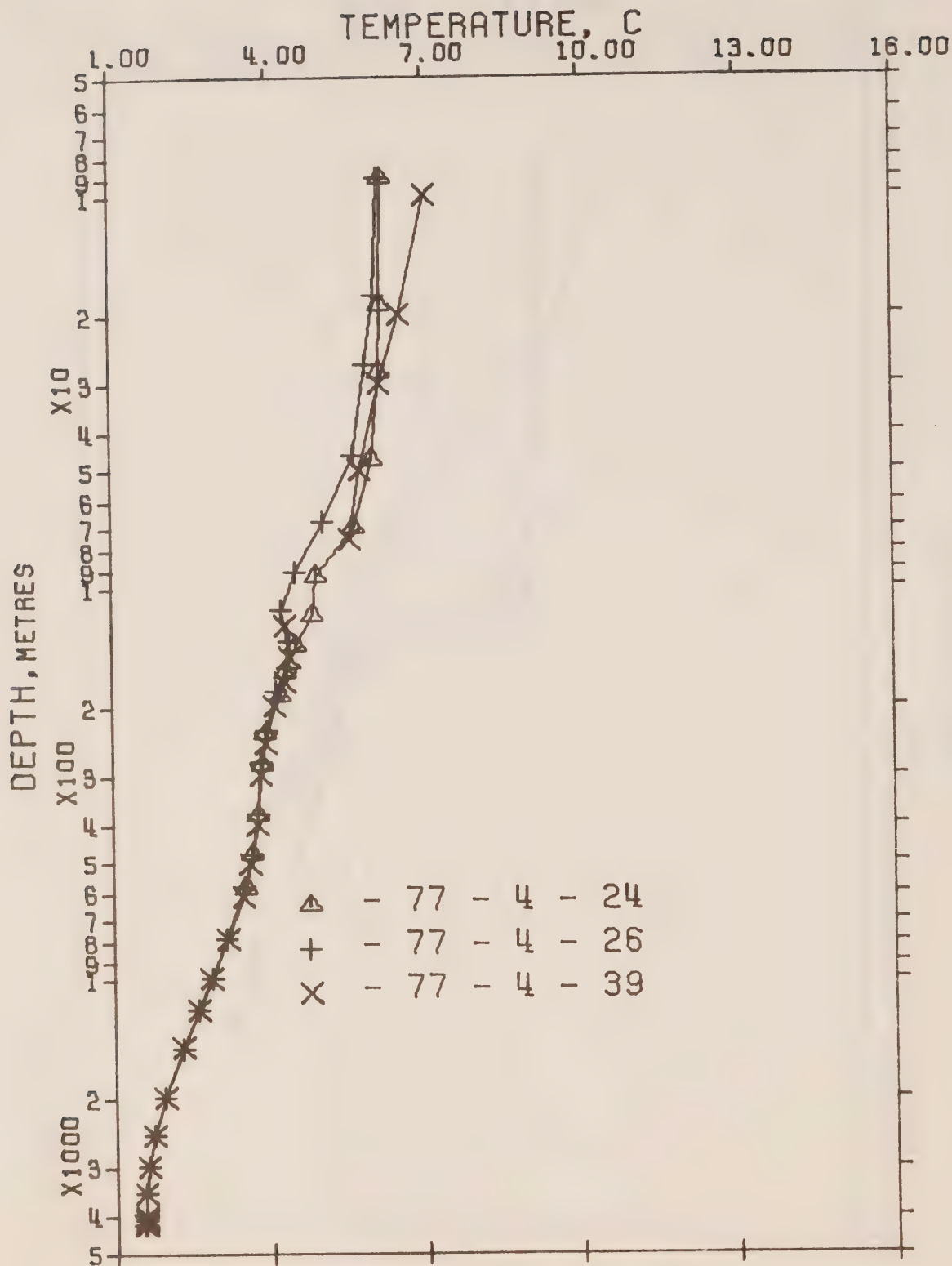


Figure 4. Composite plot of temperature vs \log_{10} depth for Station P. P-77-4.

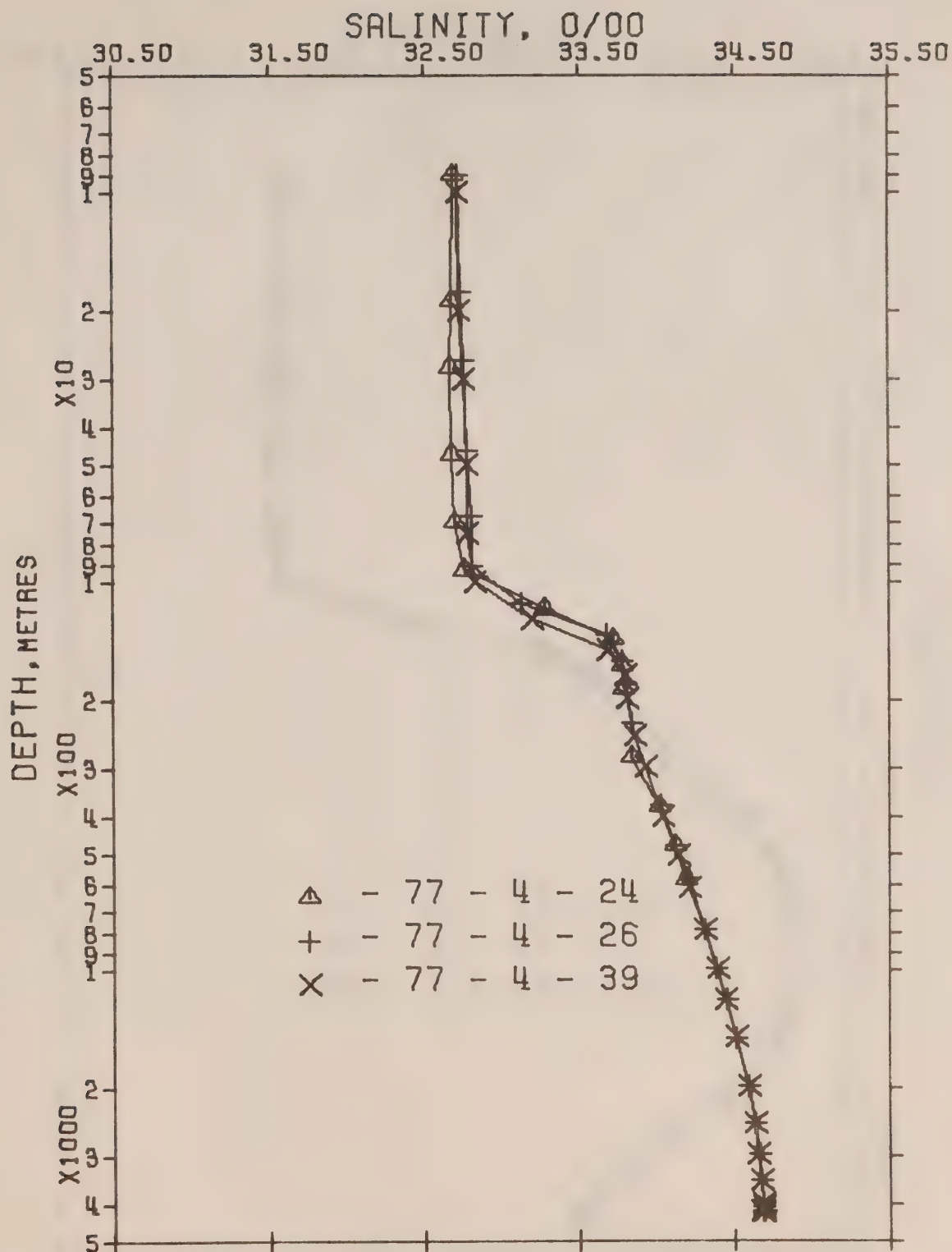


Figure 5. Composite plot of salinity vs \log_{10} depth for Station P. P-77-4.

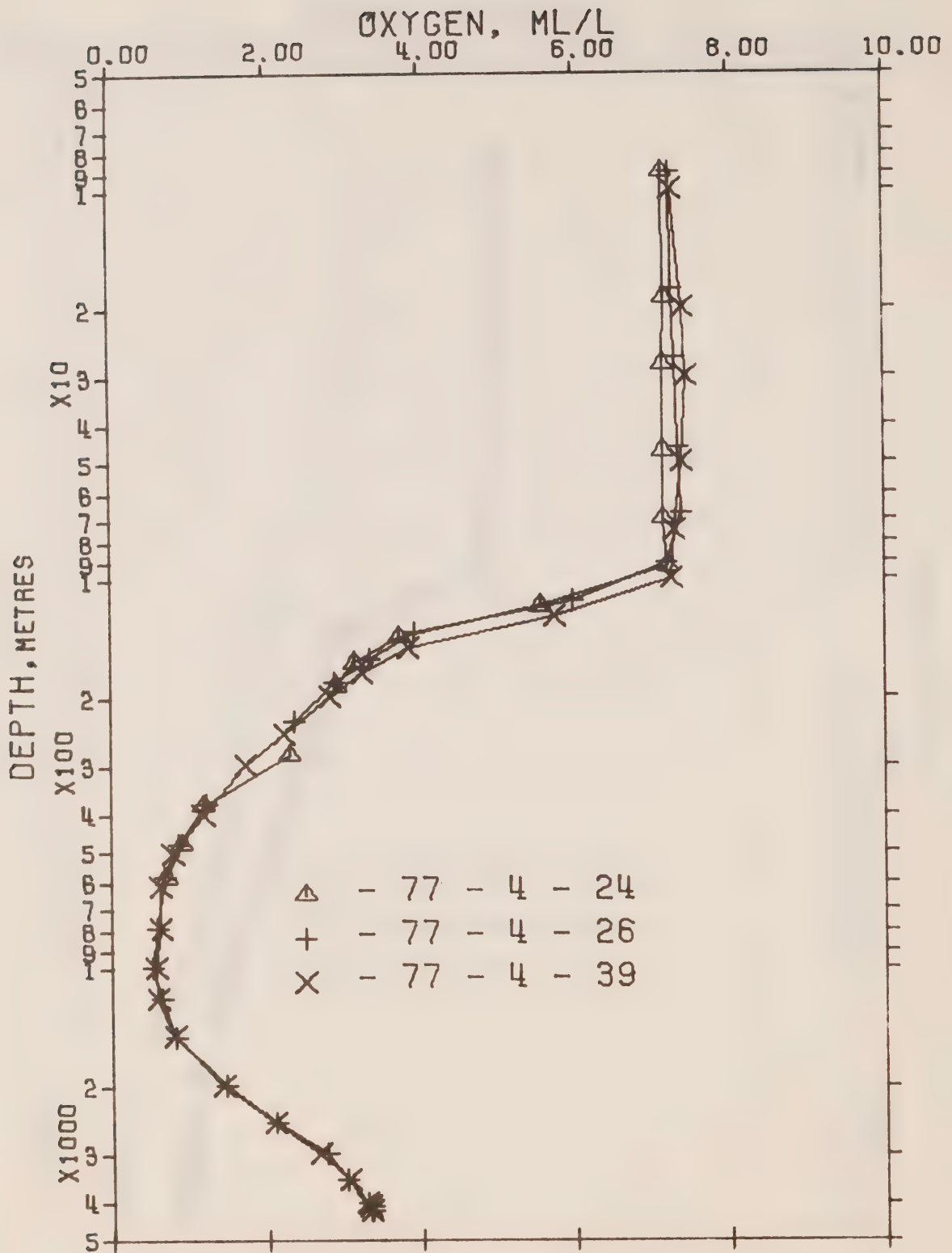
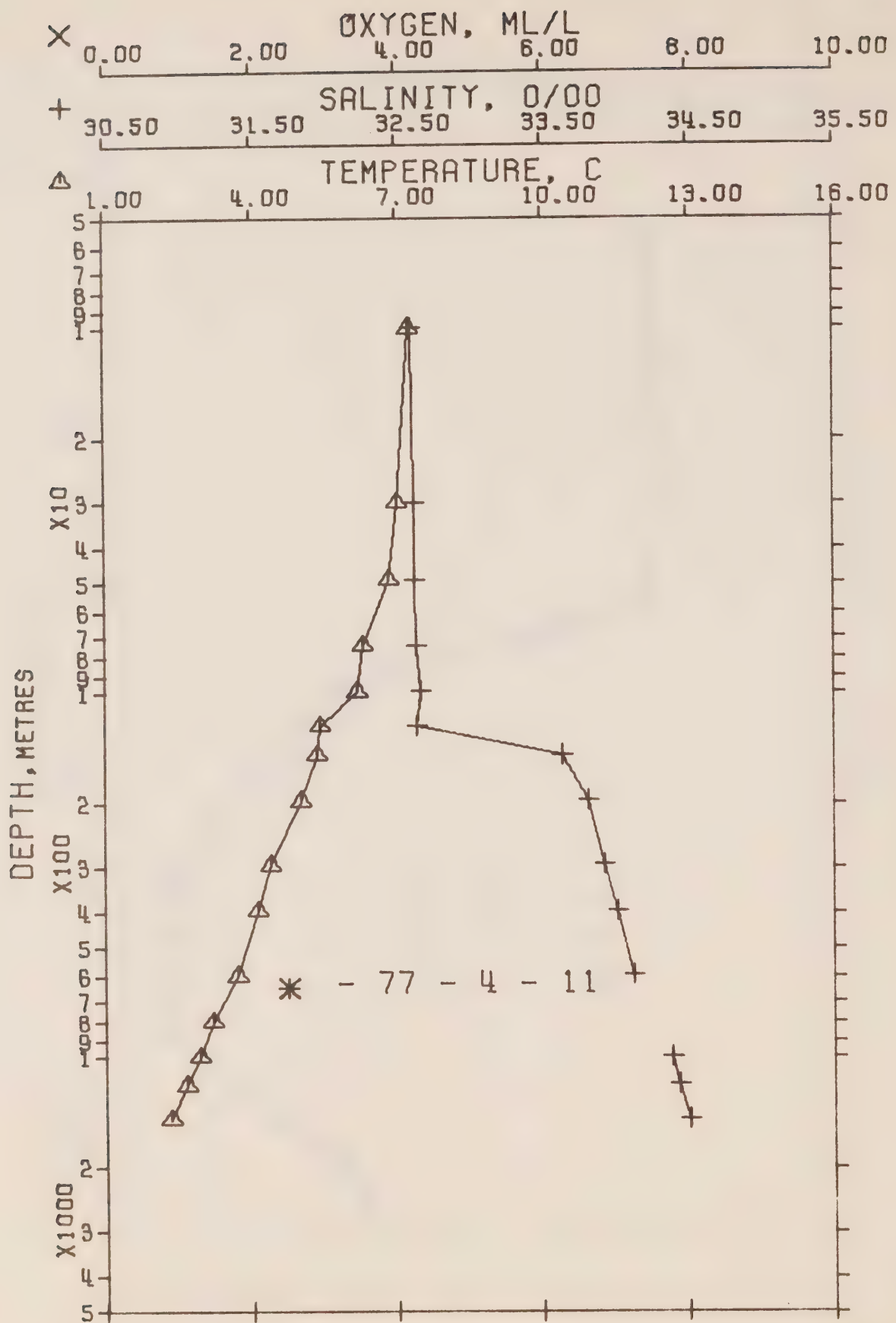


Figure 6. Composite plot of oxygen vs \log_{10} depth for Station P.
P-77-4.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 11 DATE 8/ 5/77 GMT 20.6

POSITION 49-34.0 N, 138-40.0 W

STATION 10

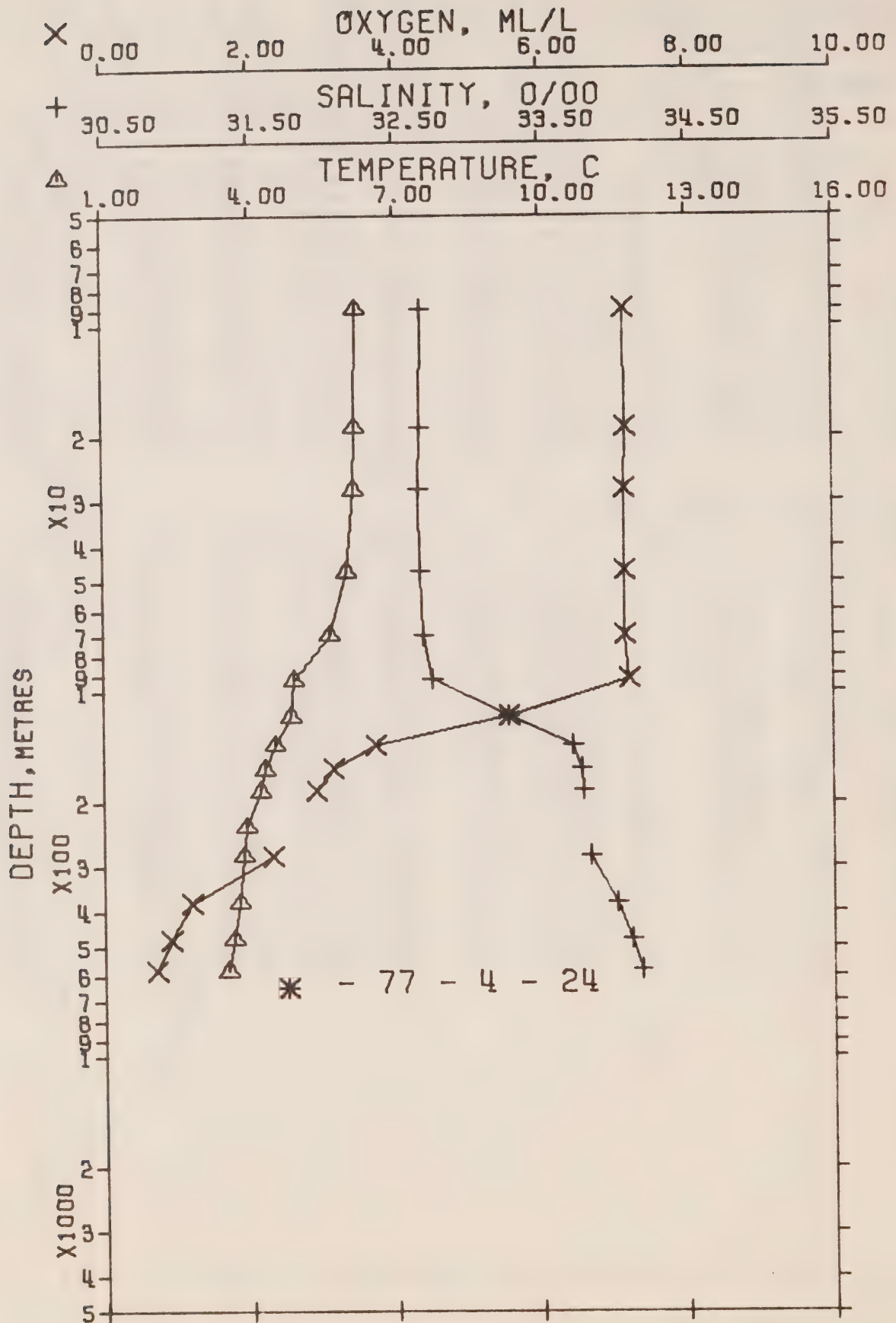
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	7.27	32.622	0	25.535	245.8	7.27	245.8	.00	.00		1477.
10	7.27	32.614	10	25.529	246.5	7.27	246.4	.25	.01		1477.
30	7.03	32.630	30	25.574	242.5	7.03	242.0	.74	.11		1477.
49	6.84	32.625	49	25.598	240.5	6.84	239.8	1.20	.30		1476.
74	6.31	32.641	74	25.676	233.2	6.30	232.3	1.80	.68		1474.
100	6.19	32.667	99	25.712	230.1	6.18	228.9	2.38	1.19		1474.
124	5.41	32.638	123	25.783	223.4	5.40	222.1	2.95	1.85		1472.
149	5.36	33.641	148	26.580	148.1	5.35	146.4	3.42	2.49		1473.
199	5.03	33.824	198	26.763	131.3	5.01	129.0	4.12	3.73		1473.
299	4.39	33.926	297	26.915	117.6	4.37	114.5	5.35	6.36		1472.
400	4.11	34.019	397	27.018	108.5	4.08	104.7	6.49	10.92		1473.
602	3.70	34.135	597	27.151	97.1	3.66	91.9	8.56	21.44		1474.
804	3.20	34.279 *	797	27.314	82.5	3.14	76.4	10.37	34.36		1476.
1005	2.91	34.389	995	27.428	72.5	2.84	65.5	11.91	48.60		1478.
1203	2.65	34.443	1191	27.494	66.8	2.57	59.2	13.29	64.06		1480.
1496	2.32	34.509	1480	27.575	59.7	2.22	51.4	15.14	89.46		1484.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	7.27	32.622	0	25.535	245.8	7.27	245.8	.00	.00		1477.
10	7.27	32.614	10	25.529	246.5	7.27	246.4	.25	.01		1477.
20	7.12	32.624	20	25.557	244.0	7.12	243.7	.49	.05		1477.
30	7.03	32.630	30	25.574	242.5	7.03	242.0	.74	.11		1477.
50	6.82	32.628	50	25.600	240.2	6.82	239.5	1.22	.31		1476.
75	6.31	32.642	75	25.677	233.1	6.30	232.2	1.81	.69		1474.
100	6.19	32.667	99	25.712	230.1	6.18	228.9	2.38	1.19		1474.
125	5.41	32.691	124	25.825	219.5	5.40	216.1	2.98	1.85		1472.
150	5.35	33.645	149	26.585	147.7	5.34	145.9	3.43	2.51		1473.
175	5.18	33.742	174	26.681	138.8	5.16	136.7	3.79	3.11		1473.
200	5.03	33.825	199	26.764	131.2	5.01	128.9	4.13	3.75		1473.
225	4.84	33.854	224	26.809	127.1	4.82	124.6	4.45	4.45		1472.
250	4.67	33.881	249	26.848	123.6	4.65	120.9	4.76	5.21		1472.
300	4.39	33.927	298	26.916	117.5	4.37	114.5	5.36	6.89		1472.
400	4.11	34.019	397	27.018	108.5	4.08	104.7	6.49	10.92		1473.
500	3.89	34.082	496	27.091	102.2	3.85	97.7	7.54	15.73		1473.
600	3.70	34.134	595	27.150	97.2	3.66	92.0	8.54	21.31		1474.
700	3.44	34.210	694	27.236	89.5	3.39	83.8	9.47	27.50		1475.
800	3.21	34.276	793	27.311	82.8	3.15	76.7	10.33	34.07		1476.
900	3.05	34.334	892	27.372	77.4	2.99	70.9	11.13	41.00		1477.
1000	2.92	34.387	991	27.426	72.7	2.85	65.7	11.88	48.26		1478.
1200	2.65	34.442	1188	27.493	66.8	2.57	59.3	13.27	63.60		1480.



OFFSHORE OCEANOGRAPHY GROUP
REFERENCE NO. 77- 4- 24
POSITION 50- 00 N, 145-
HYDROGRAPHIC CAST DATA

DATE 19/ 5/77 GMT 18.6
00 W

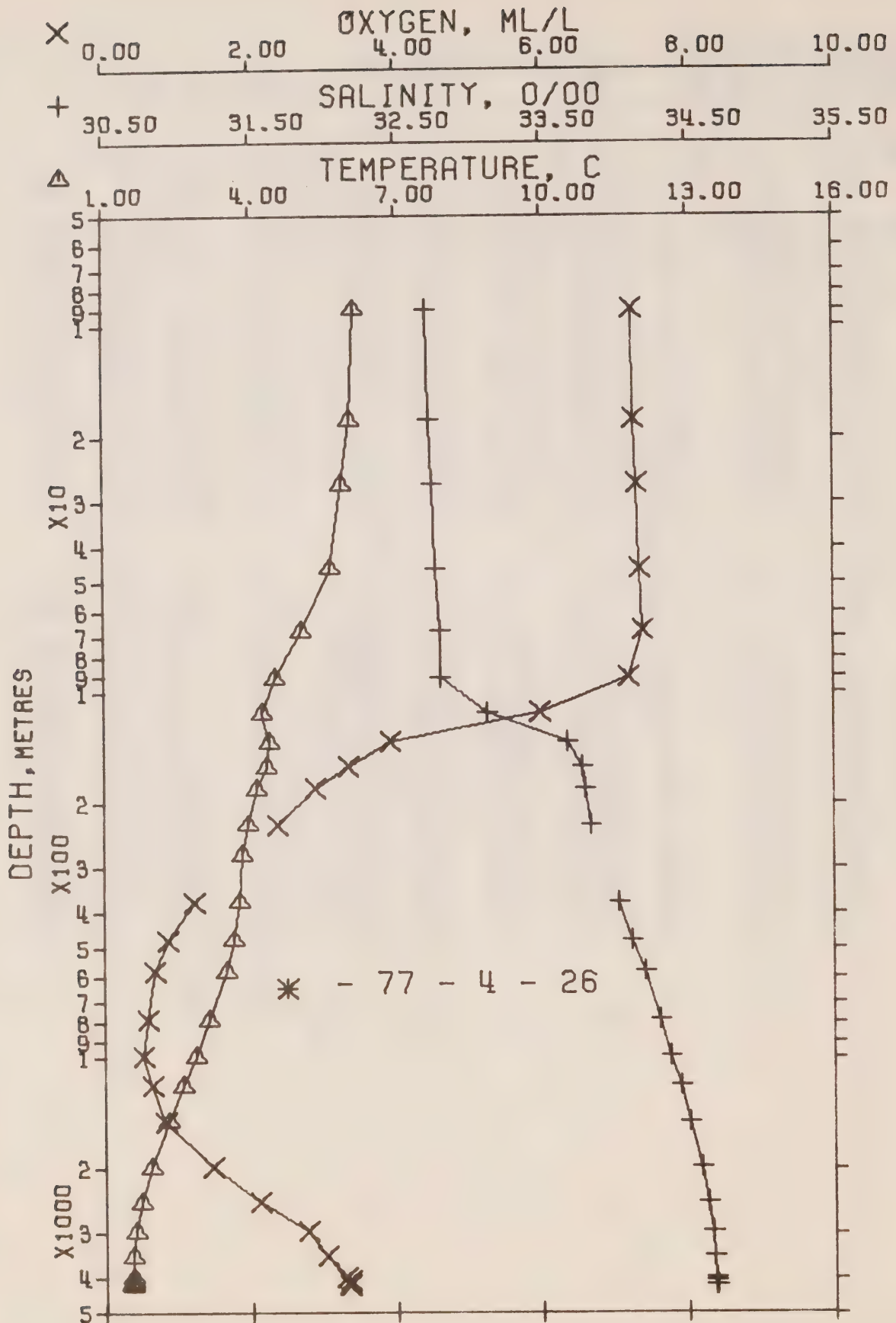
STATION P

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	6.23	32.683	0	25.719	228.2	6.23	228.2	.00	.00	7.18	1473.
9	6.21	32.687	9	25.725	227.8	6.21	227.7	.21	.01	7.16	1473.
19	6.19	32.679	19	25.721	228.3	6.19	228.0	.44	.04	7.17	1473.
28	6.16	32.675	28	25.722	228.3	6.16	228.0	.64	.09	7.16	1473.
47	6.01	32.680	47	25.744	226.4	6.01	225.8	1.08	.26	7.16	1473.
70	5.84	32.699	70	25.804	220.9	5.63	220.1	1.60	.57	7.16	1472.
94	4.91	32.758	93	25.934	208.7	4.90	207.8	2.10	.99	7.22	1469.
118	4.84	33.278	117	26.353	169.2	4.83	168.0	2.55	1.48	5.57	1470.
141	4.52	33.721	140	26.738	132.8	4.51	131.4	2.90	1.94	3.73	1470.
164	4.30	33.778	163	26.807	126.5	4.29	124.9	3.20	2.40	3.15	1469.
188	4.21	33.791	187	26.827	124.8	4.20	123.0	3.50	2.95	2.90	1469.
236	3.91	33.817*	234	26.878	120.2	3.89	118.1	4.08	4.20	2.57*	1469.
284	3.84	33.838	282	26.902	118.2	3.82	115.8	4.66	5.73	2.30	1469.
381	3.76	34.021	378	27.055	104.5	3.73	101.2	5.74	9.37	1.19	1471.
481	3.64	34.118	477	27.144	96.8	3.61	92.7	6.74	13.78	.90	1472.
585	3.52	34.194	580	27.216	90.6	3.48	85.8	7.72	19.07	.70	1473.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	6.23	32.683	0	25.719	228.2	6.23	228.2	.00	.00	7.18	1473.
10	6.21	32.686	10	25.725	227.9	6.21	227.7	.23	.01	7.16	1473.
20	6.19	32.679	20	25.721	228.3	6.18	228.0	.46	.05	7.17	1473.
30	6.14	32.676	30	25.725	228.1	6.14	227.7	.68	.10	7.16	1473.
50	5.96	32.683	50	25.753	225.6	5.95	225.0	1.14	.29	7.16	1473.
75	5.48	32.712	75	25.833	218.2	5.47	217.4	1.70	.64	7.17	1471.
100	4.89	32.907	99	26.054	197.3	4.88	196.3	2.23	1.12	6.74	1469.
125	4.73	33.425	124	26.480	157.1	4.72	155.9	2.67	1.62	4.96	1470.
150	4.43	33.744	149	26.766	130.2	4.42	128.7	3.02	2.11	3.49	1469.
175	4.26	33.784	174	26.816	125.7	4.25	124.0	3.34	2.64	3.03	1469.
200	4.13	33.798	199	26.840	123.5	4.12	121.7	3.65	3.24	2.81	1469.
225	3.97	33.811	223	26.867	121.1	3.96	119.1	3.95	3.90	2.64	1469.
250	3.89	33.823	248	26.885	119.6	3.87	117.4	4.26	4.62	2.49	1469.
300	3.83	33.872	298	26.930	115.7	3.80	113.1	4.85	6.29	2.09	1469.
400	3.73	34.041	397	27.074	102.9	3.71	99.4	5.94	10.16	1.13	1471.
500	3.62	34.133	496	27.158	95.6	3.58	91.4	6.93	14.69	.86	1472.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 26

DATE 23/ 5/77 GMT 18.1

POSITION 50- .0 N, 145-

.0 W

STATION P

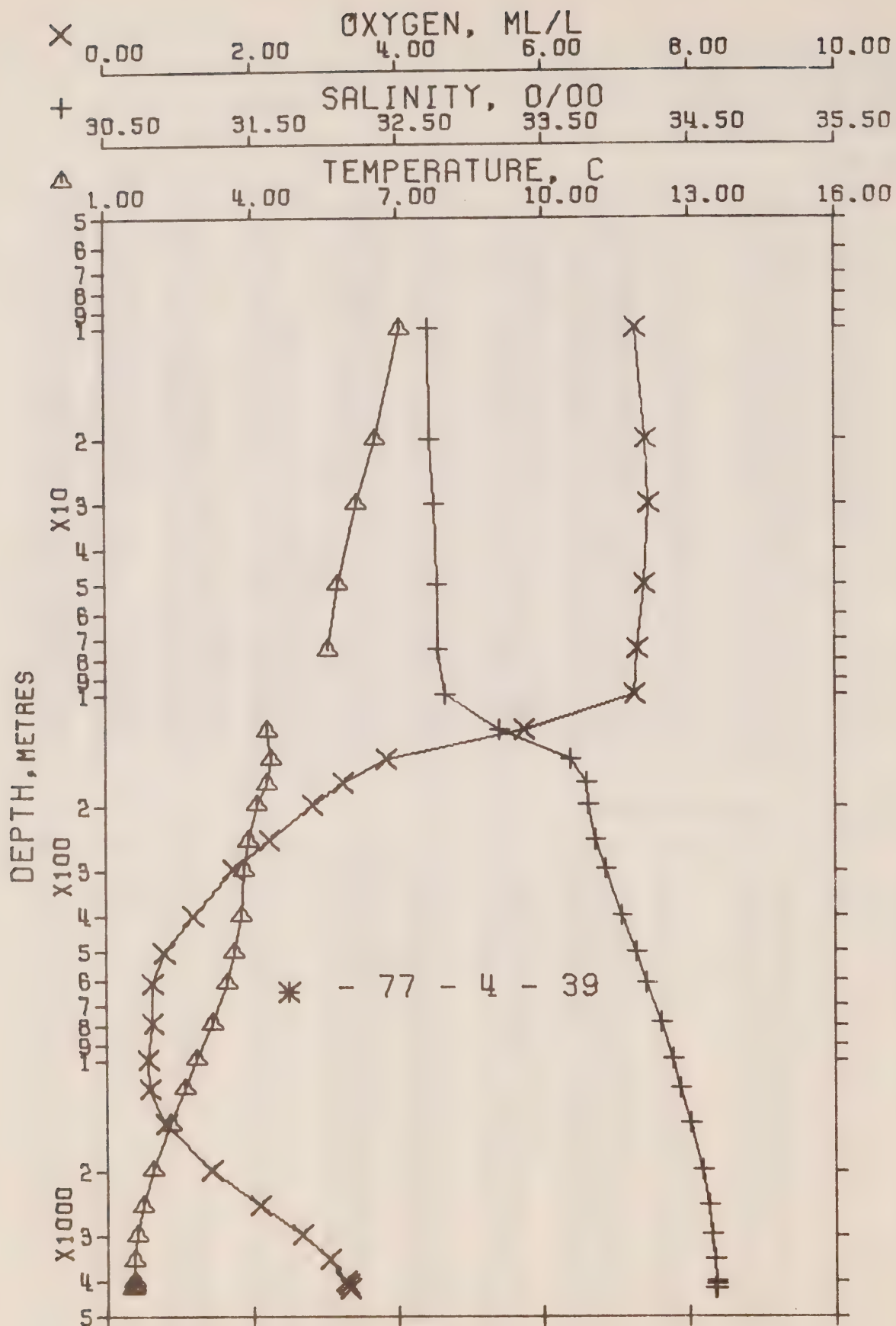
HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	6.24	32.723	0	25.750	225.4	6.24	225.4	.00	.00	7.29	1473.
9	6.17	32.724	9	25.759	224.6	6.17	224.4	.20	.01	7.26	1473.
18	6.07	32.738	18	25.783	222.4	6.07	222.2	.41	.04	7.29	1473.
27	5.89	32.757	27	25.820	219.0	5.89	218.7	.61	.08	7.31	1472.
46	5.65	32.776	46	25.864	215.0	5.65	214.5	1.02	.24	7.35	1471.
66	5.06	32.811	68	25.959	206.1	5.05	205.4	1.49	.51	7.40	1469.
92	4.50	32.808	91	26.018	200.6	4.49	199.8	1.96	.90	7.21	1468.
115	4.23+	33.135	114	26.305	173.5	4.22	172.6	2.39	1.35	5.98	1467.
138	4.40	33.680	137	26.719	134.6	4.39	133.3	2.75	1.81	3.93	1469.
161	4.33	33.777	160	26.803	126.8	4.32	125.2	3.05	2.27	3.35	1469.
185	4.13	33.801	184	26.843	123.2	4.12	121.4	3.35	2.80	2.88	1469.
232	3.94	33.842	230	26.895	118.5	3.92	116.5	3.91	3.99	2.37	1469.
280	3.82	33.915	278	26.965	112.2	3.80	109.8	4.47	5.44	1.92	1469.
378	3.76	34.031	375	27.063	103.7	3.73	100.5	5.52	8.98	1.23	1471.
480	3.63	34.120	476	27.146	96.5	3.60	92.5	6.54	13.44	.85	1472.
587	3.48	34.211	582	27.233	89.0	3.44	84.2	7.54	18.82	.69	1473.
795	3.13	34.311	788	27.346	79.3	3.08	73.4	9.28	31.10	.58	1475.
1001	2.85	34.385	991	27.430	72.1	2.78	65.3	10.83	45.28	.53	1478.
1204	2.58	34.446	1192	27.503	65.8	2.50	58.4	12.24	61.04	.64	1480.
1511	2.30	34.512	1494	27.579	59.3	2.20	51.0	14.14	87.40	.81	1484.
2020	1.92	34.590	1995	27.672	51.3	1.78	42.0	16.96	138.03	1.47	1491.
2528	1.73	34.632	2494	27.720	47.6	1.55	37.2	19.45	195.85	2.10	1499.
3037	1.61	34.657	2993	27.749	45.8	1.38	34.2	21.83	263.10	2.76	1507.
3550	1.53	34.675	3494	27.769	44.8	1.25	32.0	24.14	340.89	3.03	1515.
4067	1.54	34.684	3998	27.775	45.6	1.21	31.0	26.47	431.29	3.28	1524.
4170	1.53	34.684	4099	27.776	45.7	1.19	30.8	26.94	451.17	3.33	1526.
4264	1.52	34.685	4190	27.778	45.7	1.17	30.6	27.37	469.54	3.32	1527.
4274	1.53	34.687	4200	27.779	45.8	1.18	30.5	27.42	471.58	3.33	1528.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	6.24	32.723	0	25.750	225.4	6.24	225.4	.00	.00	7.29	1473.
10	6.16	32.726	10	25.762	224.3	6.16	224.1	.23	.01	7.27	1473.
20	6.03	32.743	20	25.792	221.6	6.02	221.4	.45	.05	7.29	1473.
30	5.85	32.761	30	25.828	218.3	5.84	217.9	.67	.10	7.32	1472.
50	5.53	32.783	50	25.883	213.2	5.53	212.7	1.10	.28	7.36	1471.
75	4.88	32.810	75	25.978	204.3	4.88	203.6	1.62	.61	7.34	1469.
100	4.40	32.935	99	26.129	190.1	4.39	189.2	2.12	1.06	6.73	1467.
125	4.31	33.388	124	26.497	155.4	4.30	154.3	2.56	1.56	5.03	1468.
150	4.36	33.732	149	26.764	130.4	4.35	128.9	2.91	2.04	3.62	1469.
175	4.21	33.791	174	26.827	124.6	4.20	123.0	3.22	2.56	3.07	1469.
200	4.07	33.815	199	26.861	121.6	4.05	119.7	3.53	3.15	2.70	1469.
225	3.97	33.837	223	26.888	119.1	3.95	117.1	3.83	3.80	2.43	1469.
250	3.89	33.871	248	26.923	116.0	3.87	113.8	4.13	4.52	2.19	1469.
300	3.81	33.942	298	26.987	110.3	3.79	107.7	4.69	6.10	1.77	1470.
400	3.73	34.052	397	27.083	102.0	3.70	98.6	5.75	9.88	1.14	1471.
500	3.60	34.138	496	27.164	95.0	3.56	90.8	6.74	14.39	.82	1472.
600	3.45	34.218	595	27.242	88.3	3.41	83.4	7.65	19.52	.68	1473.
700	3.28	34.269	694	27.299	83.3	3.23	77.9	8.51	25.20	.63	1474.
800	3.12	34.313	793	27.348	79.1	3.07	73.2	9.32	31.40	.58	1475.
900	2.98	34.351	891	27.392	75.4	2.92	69.0	10.09	38.08	.55	1476.
1000	2.85	34.385	990	27.430	72.1	2.78	65.3	10.83	45.22	.53	1478.
1200	2.59	34.445	1188	27.501	65.9	2.50	58.5	12.21	60.68	.64	1480.
1500	2.31	34.510	1483	27.576	59.5	2.21	51.3	14.08	86.42	.81	1484.
2000	1.93	34.587	1975	27.669	51.6	1.80	42.3	16.86	135.95	1.44	1490.
2500	1.74	34.630	2467	27.717	47.8	1.56	37.5	19.32	192.42	2.07	1498.
3000	1.62	34.655	2957	27.747	45.9	1.40	34.4	21.65	257.83	2.71	1506.
3500	1.54	34.673	3445	27.767	44.9	1.27	32.2	23.92	332.86	3.00	1514.
4000	1.54	34.683	3932	27.775	45.5	1.21	31.1	26.17	418.80	3.25	1523.
4100	1.54	34.684	4031	27.776	45.7	1.20	30.9	26.62	437.62	3.30	1525.
4200	1.53	34.684	4128	27.777	45.7	1.18	30.8	27.08	456.96	3.33	1526.



OFFSHORE OCEANOGRAPHY GROUP
 REFERENCE NO. 77- 4- 39
 POSITION 50- .0 N, 145-
 HYDROGRAPHIC CAST DATA

DATE 3/ 6/77 GMT 18.8
 .0 W

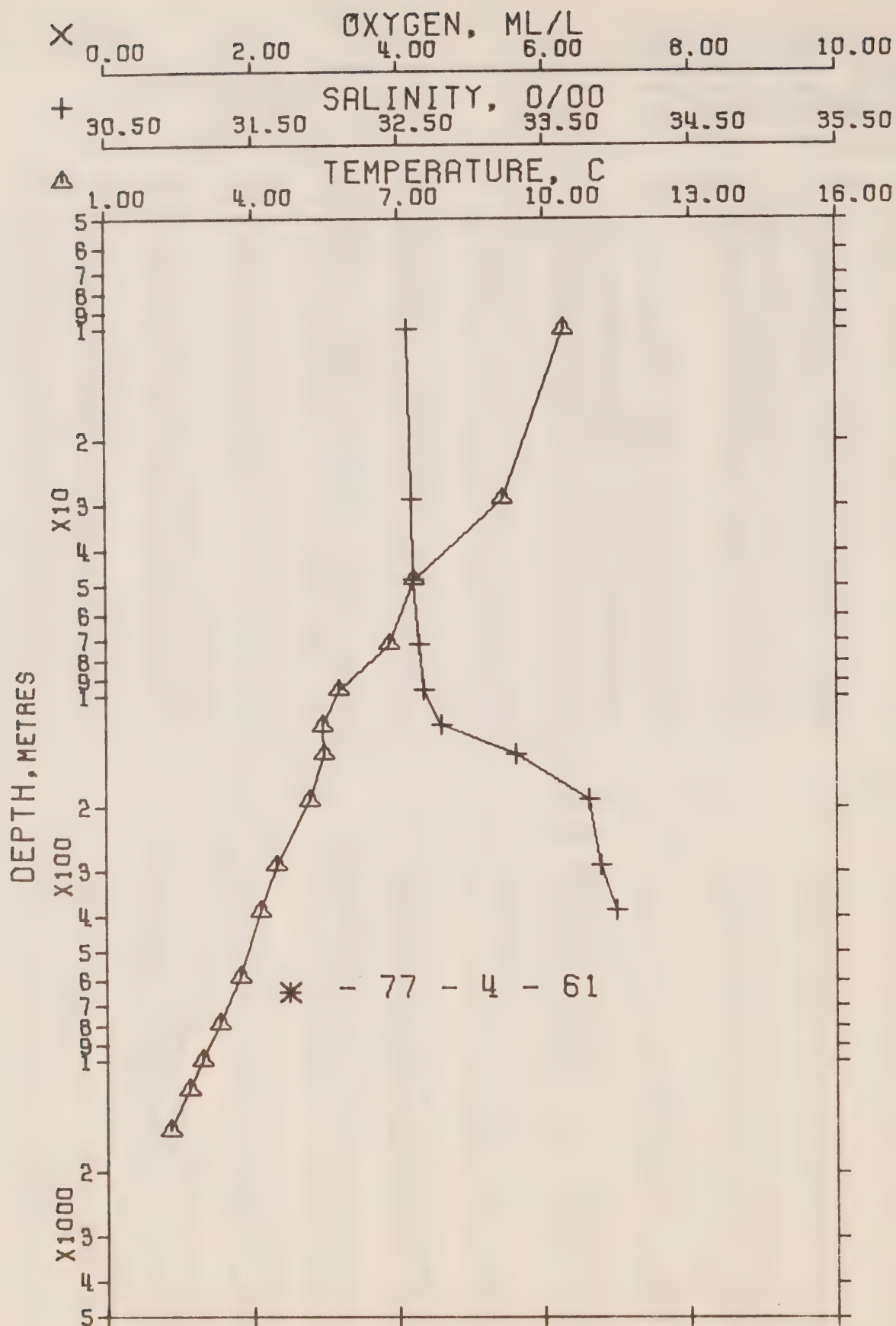
STATION P

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	7.16	32.729	0	25.634	236.4	7.16	236.4	.00	.00	7.28	1477.
10	7.06	32.723	10	25.643	235.7	7.06	235.5	.24	.01	7.27	1476.
20	6.55	32.730	20	25.716	228.8	6.55	228.6	.47	.05	7.42	1475.
30	6.16	32.759	30	25.768	222.1	6.16	221.7	.70	.11	7.45	1473.
50	5.78	32.783	50	25.853	216.0	5.78	215.5	1.14	.29	7.40	1472.
75	5.55	32.780	75	25.878	213.9	5.54	213.1	1.68	.63	7.31	1472.
101	4.85 *	32.827	100	25.996	202.9	4.84	201.9	2.21	1.11	7.26	1469.
126	4.30 +	33.197	125	26.347	169.7	4.29	168.6	2.67	1.65	5.74	1468.
150	4.38	33.687	149	26.726	134.0	4.37	132.5	3.04	2.16	3.84	1469.
175	4.30	33.798	174	26.823	125.1	4.29	123.4	3.36	2.70	3.25	1469.
200	4.09	33.811	199	26.855	122.1	4.08	120.3	3.67	3.29	2.82	1469.
251	3.92	33.864	249	26.914	116.8	3.90	114.6	4.28	4.67	2.22	1469.
301	3.82	33.926	299	26.974	111.6	3.80	109.0	4.85	6.29	1.73	1470.
403	3.76	34.036	400	27.067	103.5	3.73	100.1	5.95	10.22	1.17	1471.
508	3.60	34.144	504	27.168	94.6	3.56	90.4	6.99	15.06	.78	1472.
616	3.45	34.215	611	27.239	88.6	3.41	83.6	7.98	20.72	.63	1474.
793	3.17	34.308	786	27.340	79.9	3.12	74.0	9.47	31.39	.63	1475.
996	2.84	34.386	986	27.432	71.9	2.77	65.2	11.00	45.33	.56	1477.
1198	2.59	34.444	1186	27.500	66.0	2.51	58.6	12.39	60.92	.59	1480.
1503	2.28	34.515	1486	27.583	58.8	2.18	50.7	14.28	86.97	.81	1484.
2012	1.94	34.586	1987	27.667	51.8	1.80	42.5	17.11	137.40	1.41	1491.
2522	1.73	34.651	2488	27.719	47.7	1.55	37.3	19.63	195.73	2.08	1498.
3034	1.61	34.655	2990	27.747	45.9	1.38	34.3	22.02	263.34	2.65	1507.
3548	1.53	34.671	3492	27.766	45.0	1.25	32.3	24.35	341.57	3.03	1515.
4061	1.54	34.679	3993	27.771	46.0	1.21	31.4	26.68	431.95	3.25	1524.
4165	1.53	34.663	4094	27.775	45.8	1.19	30.9	27.15	451.90	3.30	1526.
4258	1.52	34.683	4184	27.776	45.9	1.17	30.8	27.57	469.95	3.33	1527.
4268	1.53	34.673 +	4194	27.767	46.7	1.18	31.6	27.62	472.01	3.33 *	1527.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	7.16	32.729	0	25.634	236.4	7.16	236.4	.00	.00	7.28	1477.
10	7.06	32.723	10	25.643	235.7	7.06	235.5	.24	.01	7.27	1476.
20	6.55	32.730	20	25.716	228.8	6.55	228.6	.47	.05	7.42	1475.
30	6.16	32.759	30	25.768	222.1	6.16	221.7	.70	.11	7.45	1473.
50	5.78	32.783	50	25.853	216.0	5.78	215.5	1.14	.29	7.40	1472.
75	5.55	32.780	75	25.878	213.9	5.54	213.1	1.68	.63	7.31	1472.
100	4.86	32.826	99	25.993	203.1	4.86	202.2	2.19	1.09	7.26	1469.
125	4.32	33.186	124	26.336	170.7	4.31	169.6	2.66	1.63	5.79	1468.
150	4.38	33.687	149	26.726	134.0	4.37	132.5	3.04	2.16	3.84	1469.
175	4.30	33.798	174	26.823	125.1	4.29	123.4	3.36	2.70	3.25	1469.
200	4.09	33.811	199	26.855	122.1	4.08	120.3	3.67	3.29	2.82	1469.
225	4.00	33.838	224	26.886	119.4	3.99	117.4	3.97	3.93	2.51	1469.
250	3.92	33.863	248	26.913	116.9	3.91	114.7	4.27	4.65	2.23	1469.
300	3.82	33.925	298	26.972	111.7	3.80	109.1	4.84	6.25	1.74	1470.
400	3.76	34.033	397	27.064	103.8	3.73	100.3	5.91	10.09	1.19	1471.
500	3.61	34.136	496	27.161	95.3	3.58	91.1	6.91	14.65	.81	1472.
600	3.47	34.205	595	27.230	89.4	3.43	84.5	7.83	19.82	.65	1473.
700	3.31	34.262	694	27.290	84.2	3.26	78.7	8.70	25.57	.63	1474.
800	3.16	34.311	793	27.343	79.6	3.10	73.6	9.52	31.82	.63	1475.
900	2.99	34.351	891	27.391	75.4	2.93	69.1	10.29	38.53	.59	1476.
1000	2.83	34.387	991	27.434	71.7	2.77	65.0	11.03	45.65	.56	1477.
1200	2.59	34.444	1188	27.501	66.0	2.51	58.6	12.40	61.05	.59	1480.
1500	2.28	34.514	1483	27.582	58.9	2.18	50.7	14.27	86.74	.80	1484.
2000	1.95	34.585	1975	27.665	51.9	1.81	42.6	17.05	136.17	1.40	1491.
2500	1.74	34.629	2467	27.717	47.9	1.56	37.5	19.53	193.06	2.05	1498.
3000	1.62	34.654	2957	27.745	46.0	1.40	34.5	21.86	258.49	2.62	1506.
3500	1.54	34.670	3446	27.764	45.1	1.27	32.5	24.13	333.82	3.00	1514.
4000	1.54	34.678	3933	27.771	45.9	1.21	31.5	26.40	420.35	3.23	1523.
4100	1.54	34.680	4031	27.773	45.9	1.20	31.2	26.86	439.31	3.27	1525.
4200	1.53	34.683	4128	27.776	45.8	1.18	30.9	27.31	458.70	3.31	1526.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 61 DATE 20/ 6/77 GMT 23.9

POSITION 49-34.0 N, 138-40.0 W

STATION 10

HYDROGRAPHIC CAST DATA

OBSERVED DATA

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	10.53	32.574	0	24.993	297.3	10.53	297.3	.00	.00		1489.
10	10.42	32.569	10	25.008	296.1	10.42	295.9	.30	.02		1489.
29	9.15	32.602	29	25.242	274.1	9.15	273.6	.84	.12		1485.
48	7.33	32.608	48	25.516	248.3	7.33	247.5	1.34	.32		1478.
72	6.83	32.651	72	25.617	238.9	6.82	237.9	1.93	.68		1476.
97	5.77	32.679	96	25.773	224.2	5.76	223.1	2.49	1.16		1473.
121	5.45	32.802	120	25.908	211.6	5.44	210.3	3.02	1.75		1472.
145	5.46	33.313	144	26.310	173.8	5.45	172.0	3.48	2.38		1473.
193	5.18	33.807	192	26.732	134.2	5.16	131.9	4.22	3.64		1473.
292	4.49	33.886	290	26.872	121.6	4.47	118.6	5.48	6.75		1472.
391	4.14	33.996	388	26.996	110.4	4.11	106.7	6.62	10.72		1472.
592	3.74	34.107	587	27.125	99.5	3.70	94.4	8.72	21.22		1474.
795	3.32	34.185	788	27.228	90.6	3.26	84.5	10.65	34.81		1476.
999	2.95	34.246	989	27.311	83.4	2.88	76.6	12.41	50.95		1478.
1203	2.67	34.296	1191	27.375	77.8	2.59	70.4	14.06	69.42		1480.
1557	2.29	34.365	1540	27.462	70.2	2.18	62.1	16.68	106.19		1484.

INTERPOLATED TO STANDARD PRESSURE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	THETA	SVA (THETA)	DELTA D	POT. EN	OXY	SOUND
0	10.53	32.574	0	24.993	297.3	10.53	297.3	.00	.00		1489.
10	10.42	32.569	10	25.008	296.1	10.42	295.9	.30	.02		1489.
20	9.61	32.590	20	25.160	281.8	9.61	281.4	.59	.06		1486.
30	9.05	32.602	30	25.259	272.6	9.05	272.0	.86	.13		1484.
50	7.29	32.612	50	25.525	247.4	7.28	246.7	1.38	.34		1478.
75	6.70	32.654	75	25.636	237.1	6.70	236.0	1.99	.73		1476.
100	5.72	32.698	99	25.794	222.2	5.71	221.1	2.56	1.24		1473.
125	5.45	32.899	124	25.984	204.4	5.44	203.0	3.10	1.86		1472.
150	5.45	33.372	148	26.360	169.0	5.41	167.3	3.57	2.51		1473.
175	5.28	33.656	174	26.586	147.8	5.26	145.8	3.96	3.16		1473.
200	5.12	33.814	199	26.744	133.1	5.11	130.8	4.31	3.82		1473.
225	4.93	33.836	224	26.784	129.5	4.91	126.9	4.64	4.53		1473.
250	4.75	33.856	248	26.820	126.2	4.73	123.5	4.96	5.31		1473.
300	4.46	33.896	298	26.884	120.5	4.44	117.5	5.57	7.04		1472.
400	4.12	34.062	397	27.004	109.8	4.09	106.0	6.72	11.12		1473.
500	3.90	34.062	496	27.073	103.9	3.87	99.4	7.79	16.01		1473.
600	3.72	34.110	595	27.130	99.1	3.68	94.0	8.80	21.70		1474.
700	3.50	34.151	694	27.184	94.5	3.45	88.8	9.77	28.11		1475.
800	3.31	34.167	793	27.231	90.4	3.25	84.3	10.69	35.17		1476.
900	3.12	34.218	891	27.273	86.7	3.06	80.2	11.58	42.84		1477.
1000	2.95	34.247	990	27.311	83.4	2.88	76.6	12.43	51.07		1478.
1200	2.67	34.295	1188	27.374	77.9	2.59	70.5	14.04	69.12		1480.
1500	2.35	34.355	1484	27.450	71.3	2.24	63.3	16.28	99.90		1484.

Results of STD Observations

(P-77-4)

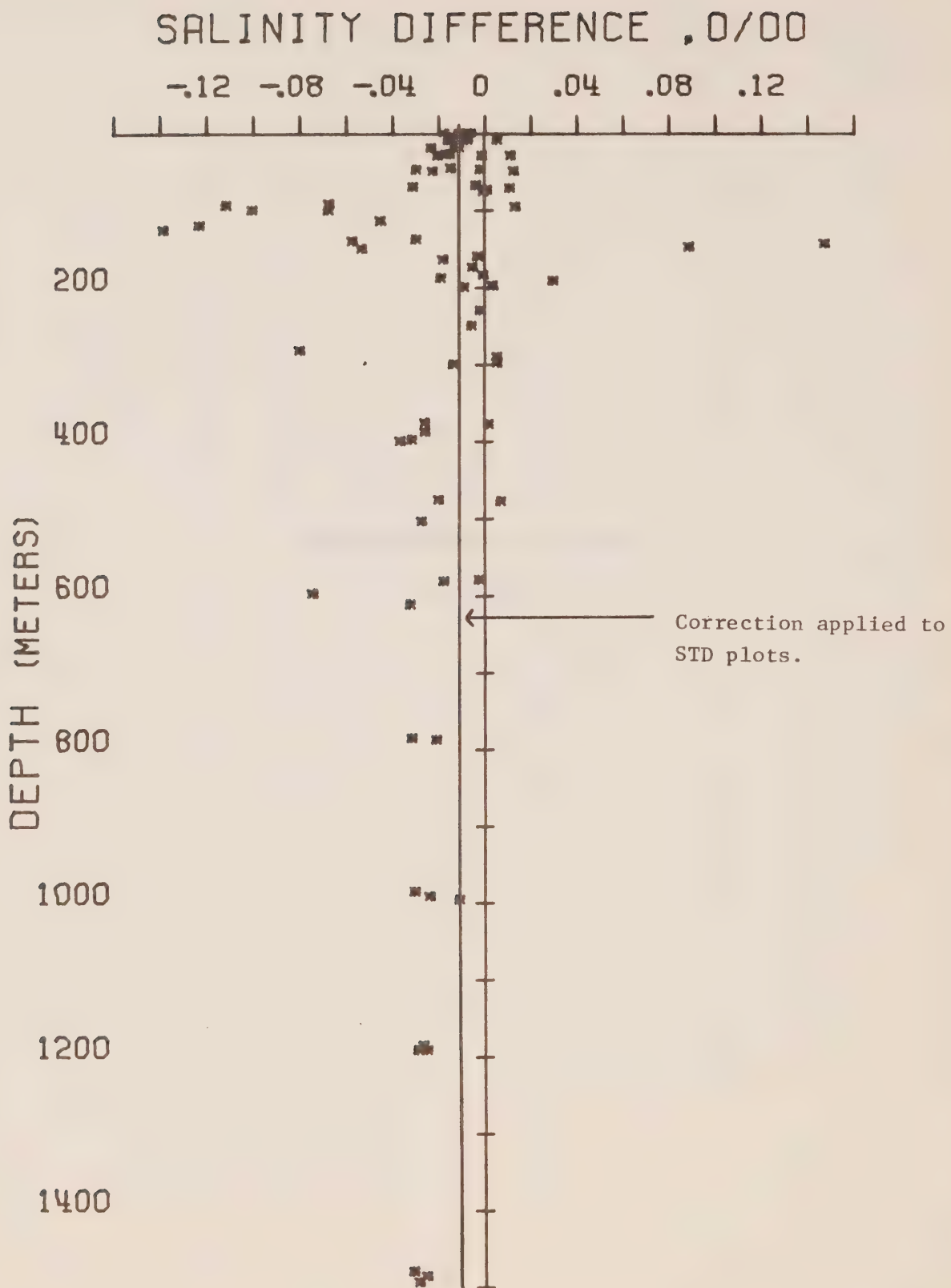


Figure 7. Salinity difference between hydro data and STD. P-77-4.

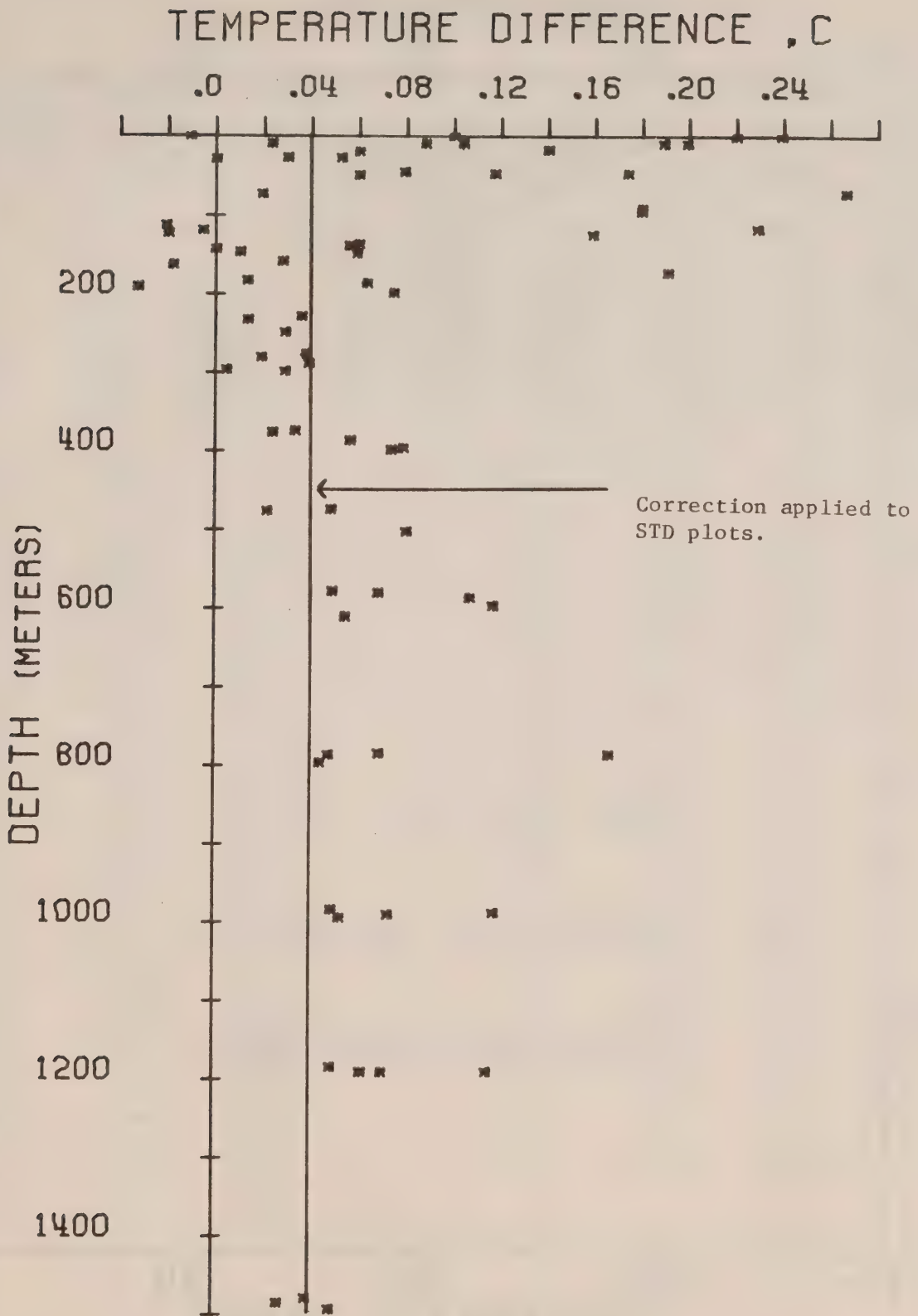
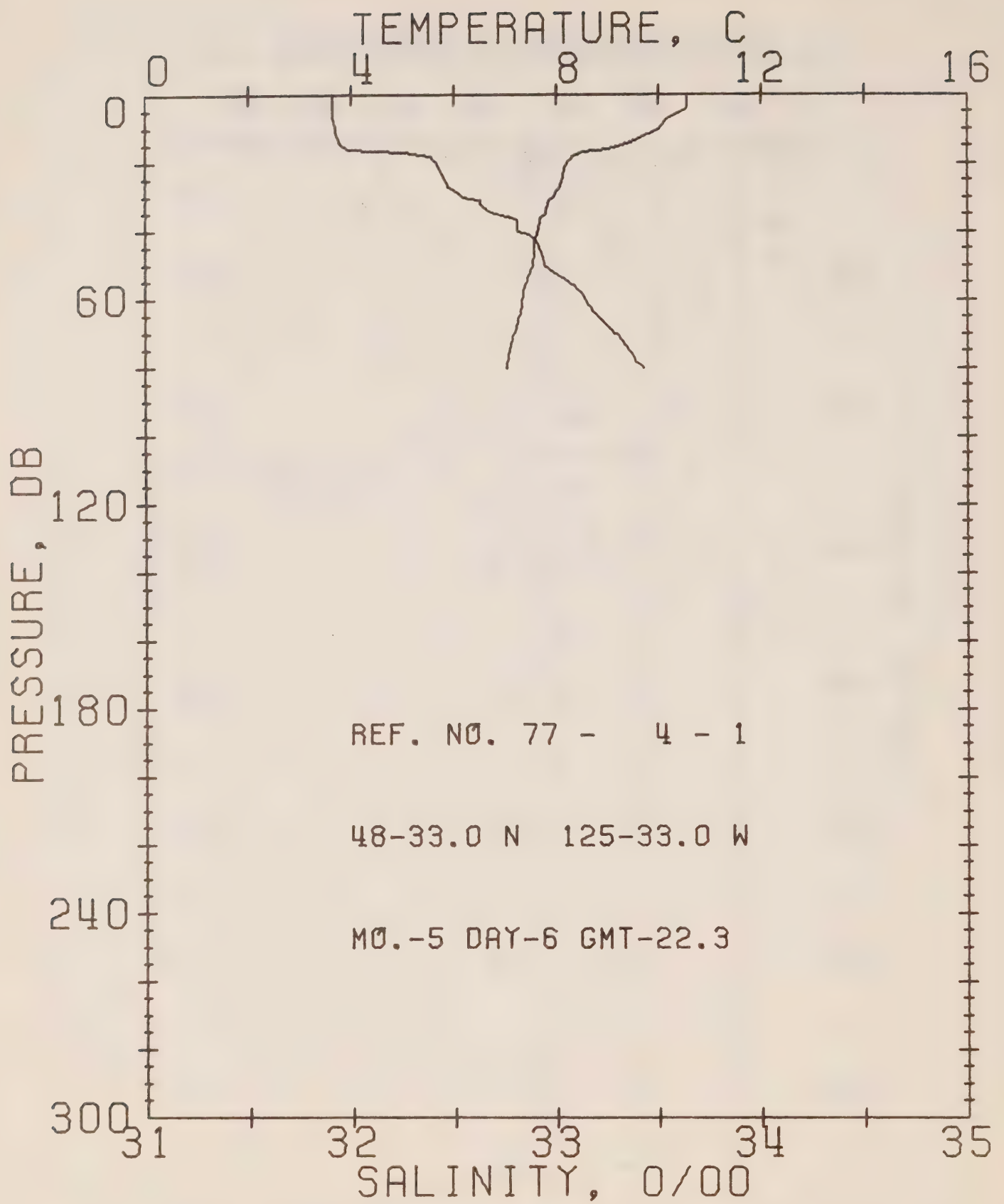


Figure 8. Temperature difference between hydro data and STD. P-77-4.



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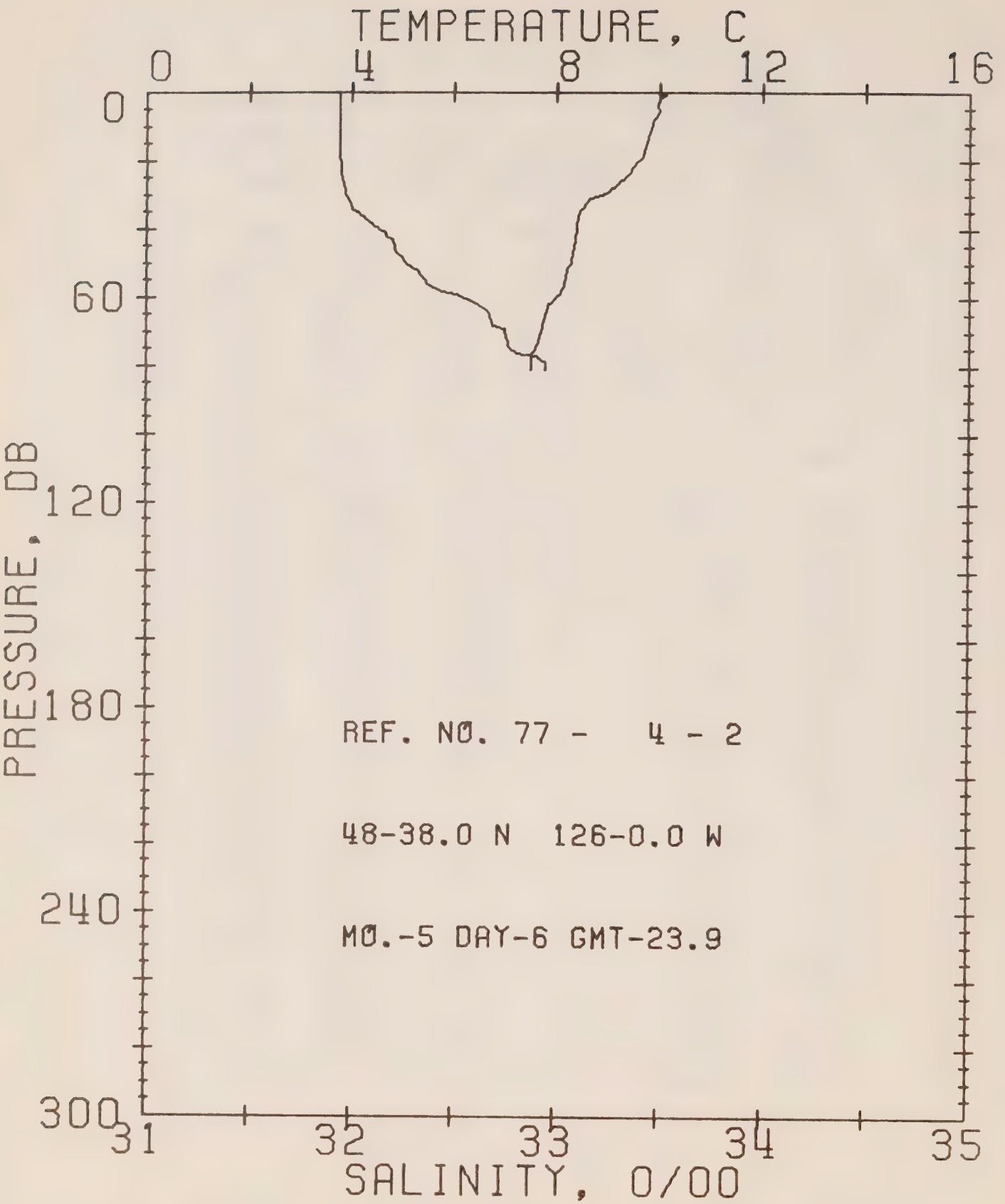
STATION 1

POSITION 48-33.0N, 125-33.0W GMT 22.3

RESULTS OF STP CAST 51 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.58	31.91	0	24.47	347.2	0.0	0.0	1489.
10	10.03	31.92	10	24.57	338.1	0.34	0.02	1487.
20	8.24	32.41	20	25.23	275.2	0.66	0.06	1481.
30	7.94	32.54	30	25.38	261.5	0.93	0.13	1480.
50	7.54	32.94	50	25.75	226.5	1.40	0.33	1479.
75	7.10	33.36	75	26.14	189.7	1.92	0.65	1479.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	10.58	31.91	40.	7.65	32.81
1.	10.57	31.91	41.	7.63	32.87
3.	10.56	31.91	42.	7.60	32.89
4.	10.55	31.91	43.	7.58	32.90
5.	10.45	31.91	46.	7.56	32.92
7.	10.22	31.91	47.	7.56	32.93
10.	10.03	31.92	50.	7.54	32.94
11.	9.96	31.92	52.	7.50	32.99
12.	9.73	31.93	54.	7.44	33.04
14.	9.46	31.94	55.	7.43	33.06
16.	9.05	31.98	56.	7.40	33.09
17.	8.54	32.25	58.	7.37	33.12
18.	8.32	32.39	59.	7.35	33.13
21.	8.20	32.42	61.	7.34	33.15
22.	8.16	32.43	62.	7.33	33.16
26.	8.10	32.46	64.	7.32	33.19
27.	8.09	32.47	66.	7.26	33.22
28.	8.02	32.50	69.	7.23	33.27
29.	7.99	32.52	71.	7.15	33.31
30.	7.94	32.54	72.	7.14	33.32
31.	7.86	32.63	75.	7.10	33.36
32.	7.84	32.63	77.	7.08	33.38
34.	7.80	32.67	78.	7.07	33.39
35.	7.78	32.70	79.	7.04	33.41
36.	7.72	32.79	80.	7.04	33.43
37.	7.69	32.81			



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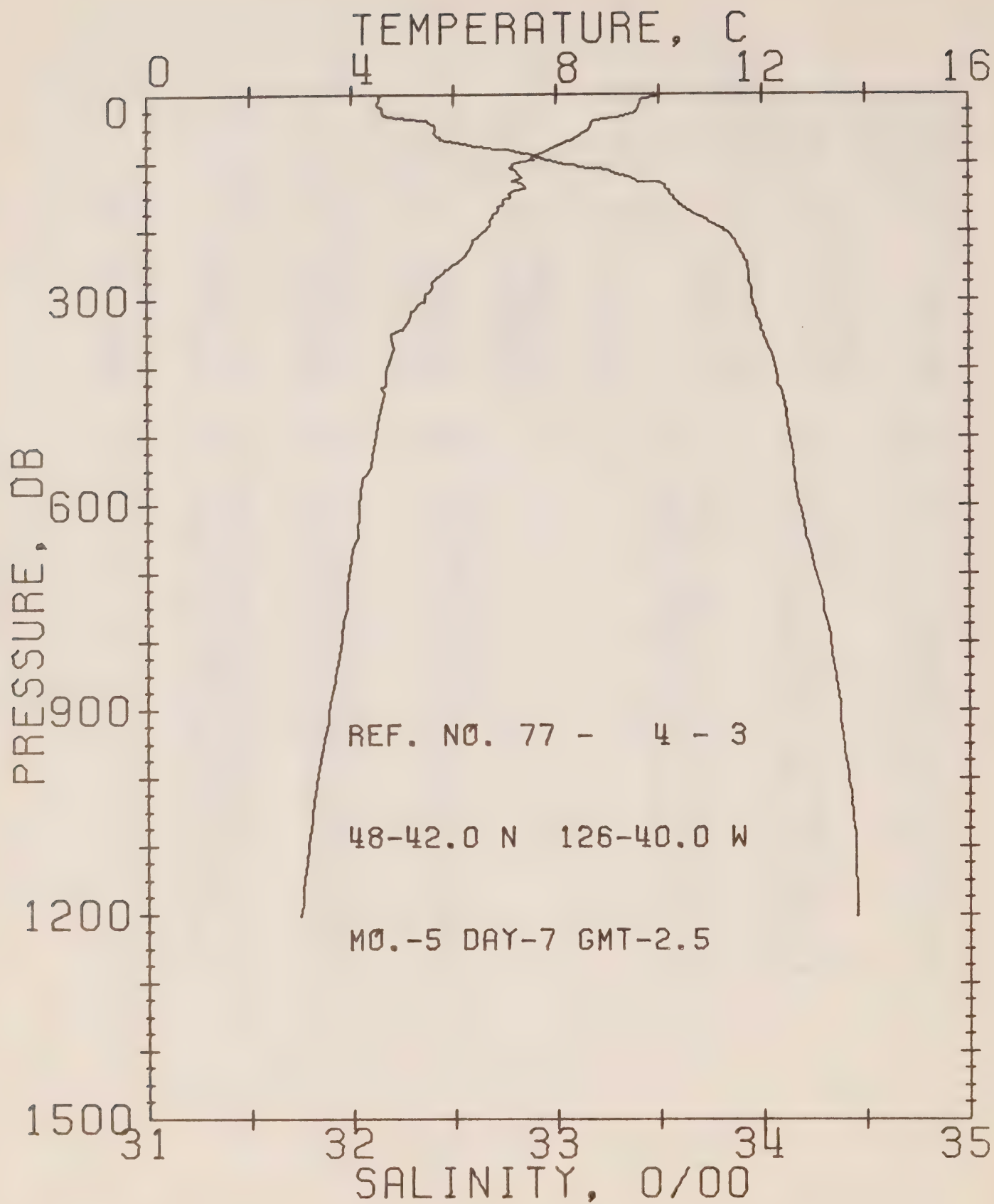
STATION 2

POSITION 48-38.0N, 126- 0.0W GMT 23.9

RESULTS OF STP CAST 44 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.99	31.96	0	24.61	334.1	0.0	0.0	1486.
10	9.94	31.96	10	24.62	333.6	0.34	0.02	1486.
20	9.69	31.96	20	24.66	329.7	0.67	0.07	1486.
30	8.95	31.99	30	24.80	316.7	0.99	0.15	1483.
50	8.36	32.29	50	25.12	286.3	1.59	0.39	1482.
75	7.67	32.80	75	25.62	239.2	2.24	0.80	1480.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	9.99	31.96	50.	8.36	32.29
1.	10.21	31.96	51.	8.32	32.31
2.	10.08	31.96	52.	8.28	32.34
4.	10.06	31.96	56.	8.24	32.39
6.	10.09	31.96	58.	8.18	32.46
8.	9.97	31.96	59.	8.15	32.53
15.	9.85	31.96	61.	8.02	32.61
19.	9.77	31.96	62.	7.93	32.64
21.	9.62	31.97	63.	7.91	32.67
24.	9.49	31.97	64.	7.89	32.69
27.	9.28	31.98	67.	7.84	32.70
29.	9.12	31.99	68.	7.82	32.71
30.	8.95	31.99	69.	7.80	32.77
31.	8.76	32.00	70.	7.78	32.77
34.	8.58	32.02	73.	7.73	32.78
35.	8.53	32.05	74.	7.71	32.78
39.	8.49	32.13	76.	7.64	32.82
41.	8.47	32.18	77.	7.61	32.92
42.	8.46	32.19	78.	7.61	32.95
43.	8.45	32.22	79.	7.61	32.97
46.	8.43	32.23	80.	7.61	32.97
47.	8.40	32.24	81.	7.61	32.97



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REFERENCE NO. 77- 4- 3

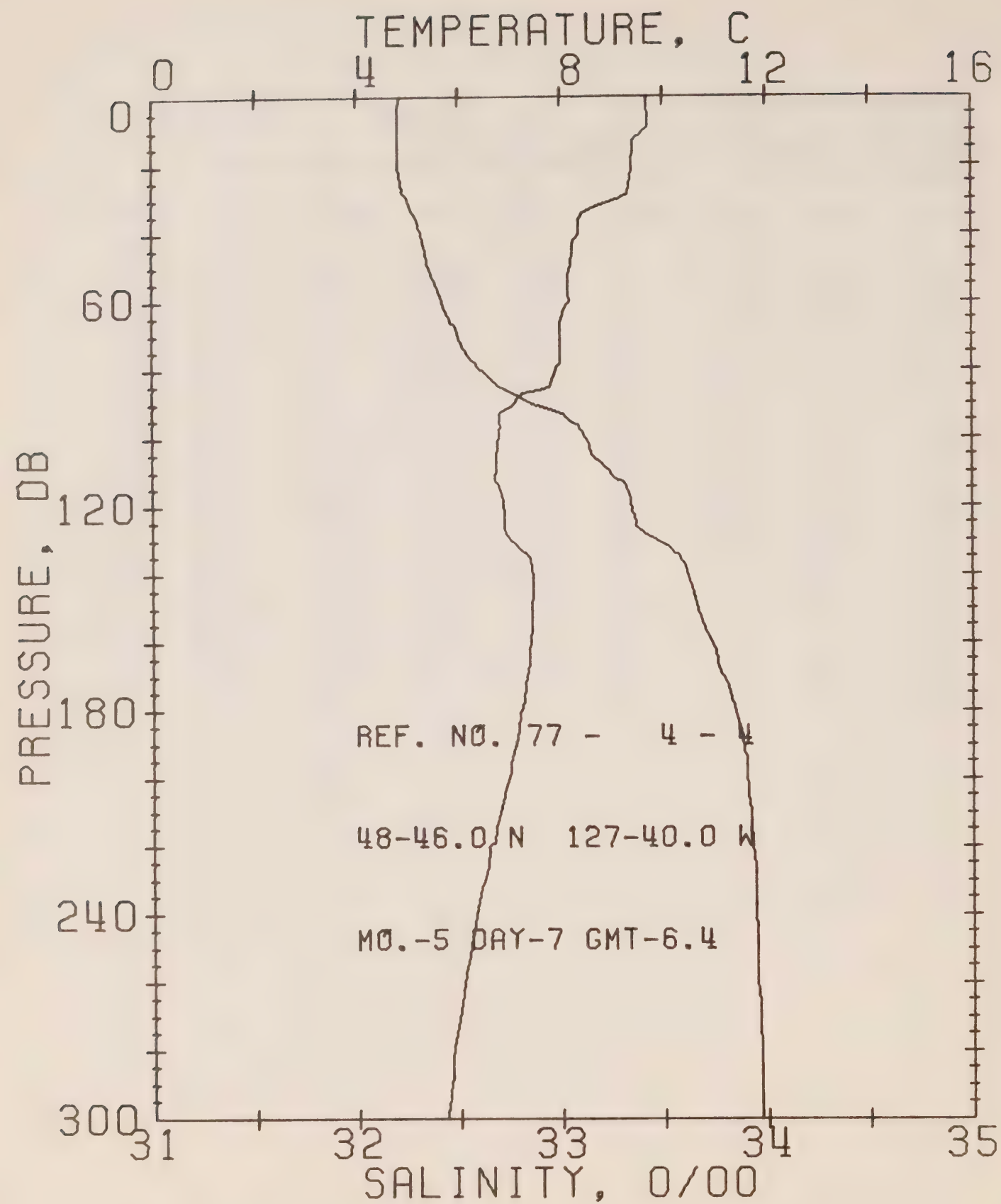
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STATION 3

POSITION 48-42.0N, 126-40.0W GMT 2.5

RESULTS OF STP CAST 187 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.97	32.17	0	24.77	318.2	0.0	0.0	1487.
10	9.70	32.15	10	24.80	315.9	0.32	0.02	1486.
20	9.65	32.16	20	24.81	314.9	0.63	0.06	1486.
30	9.48	32.17	30	24.85	311.3	0.95	0.14	1485.
50	8.70	32.42	50	25.17	281.4	1.53	0.38	1483.
75	8.11	32.60	75	25.40	259.7	2.22	0.82	1481.
100	7.31	33.03	99	25.85	217.5	2.81	1.34	1479.
125	7.25	33.40	124	26.15	189.5	3.31	1.92	1480.
150	7.16	33.58	149	26.31	174.9	3.76	2.55	1480.
175	6.84	33.69	174	26.43	163.2	4.19	3.25	1480.
200	6.67	33.83	199	26.57	150.9	4.58	4.00	1479.
225	6.37	33.90	223	26.66	142.1	4.94	4.79	1479.
250	6.04	33.94	248	26.73	135.3	5.29	5.63	1478.
300	5.49	33.96	298	26.82	127.6	5.94	7.45	1477.
400	4.75	34.08	397	27.00	111.3	7.12	11.66	1475.
500	4.53	34.14	496	27.07	104.8	8.20	16.60	1476.
600	4.20	34.19	595	27.15	98.6	9.22	22.29	1476.
800	3.82	34.34	793	27.31	84.7	11.04	35.28	1478.
1000	3.35	34.43	991	27.42	74.3	12.63	49.84	1480.
1200	3.01	34.47	1188	27.49	68.9	14.06	65.77	1482.



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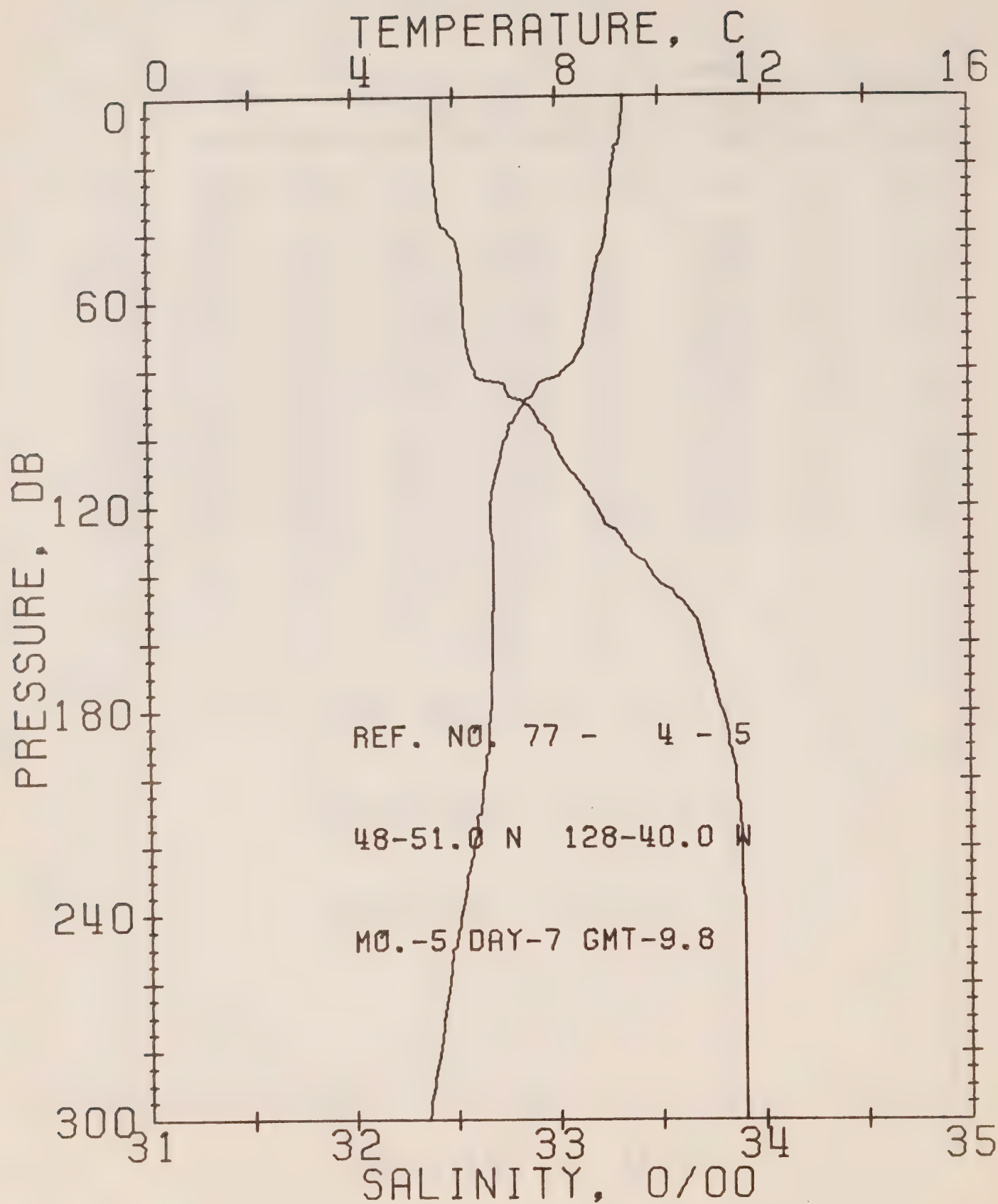
DATE 7/ 5/77

STATION 4

POSITION 48-46.0N, 127-40.0W GMT 6.4

RESULTS OF STP CAST 111 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.70	32.22	0	24.86	310.3	0.0	0.0	1486.
10	9.67	32.21	10	24.85	311.0	0.31	0.02	1486.
20	9.41	32.21	20	24.90	307.1	0.62	0.06	1485.
30	9.12	32.25	30	24.97	300.0	0.92	0.14	1484.
50	8.20	32.36	50	25.20	279.1	1.49	0.37	1481.
75	8.00	32.54	75	25.37	263.0	2.17	0.80	1481.
100	6.79	33.12	99	25.99	204.0	2.76	1.32	1477.
125	6.90	33.37	124	26.17	187.3	3.24	1.88	1479.
150	7.44	33.67	149	26.33	172.7	3.69	2.50	1481.
175	7.29	33.82	174	26.48	159.4	4.10	3.19	1481.
200	6.96	33.90	199	26.58	149.2	4.49	3.92	1481.
225	6.56	33.94	223	26.67	141.8	4.85	4.71	1480.
250	6.21	33.95	248	26.72	136.7	5.20	5.55	1479.
300	5.73	33.97	298	26.80	129.9	5.86	7.41	1478.



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REFERENCE NO. 77- 4- 5

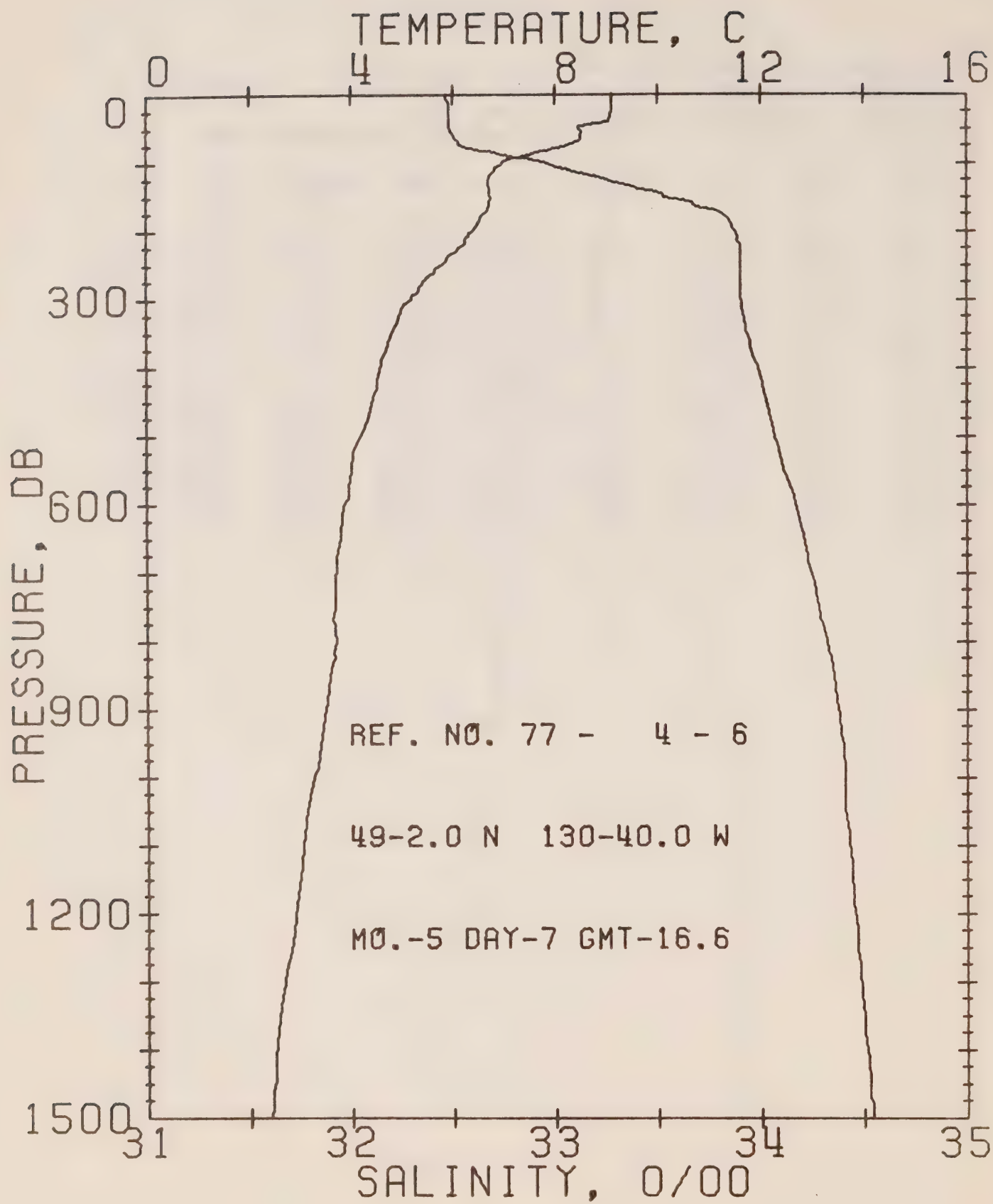
DATE 7/ 5/77

STATION 5

POSITION 48-51.0N, 128-40.0W GMT 9.8

RESULTS OF STP CAST 118 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.34	32.40	0	25.06	291.4	0.0	0.0	1485.
10	9.29	32.40	10	25.06	291.1	0.29	0.01	1485.
20	9.12	32.40	20	25.09	288.3	0.58	0.06	1484.
30	9.05	32.42	30	25.11	286.5	0.87	0.13	1484.
50	8.78	32.53	50	25.25	274.2	1.43	0.36	1484.
75	8.43	32.57	75	25.33	266.8	2.11	0.79	1483.
100	7.02	32.98	99	25.85	217.4	2.71	1.33	1478.
125	6.70	33.23	124	26.09	195.0	3.23	1.92	1478.
150	6.74	33.63	149	26.40	165.7	3.68	2.55	1479.
175	6.69	33.77	174	26.51	155.4	4.08	3.21	1479.
200	6.54	33.86	199	26.61	146.8	4.45	3.93	1479.
225	6.27	33.89	223	26.67	141.6	4.81	4.71	1478.
250	5.90	33.90	248	26.72	136.6	5.16	5.55	1477.
300	5.42	33.90	298	26.78	131.3	5.83	7.43	1476.



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REFERENCE NO. 77- 4- 6

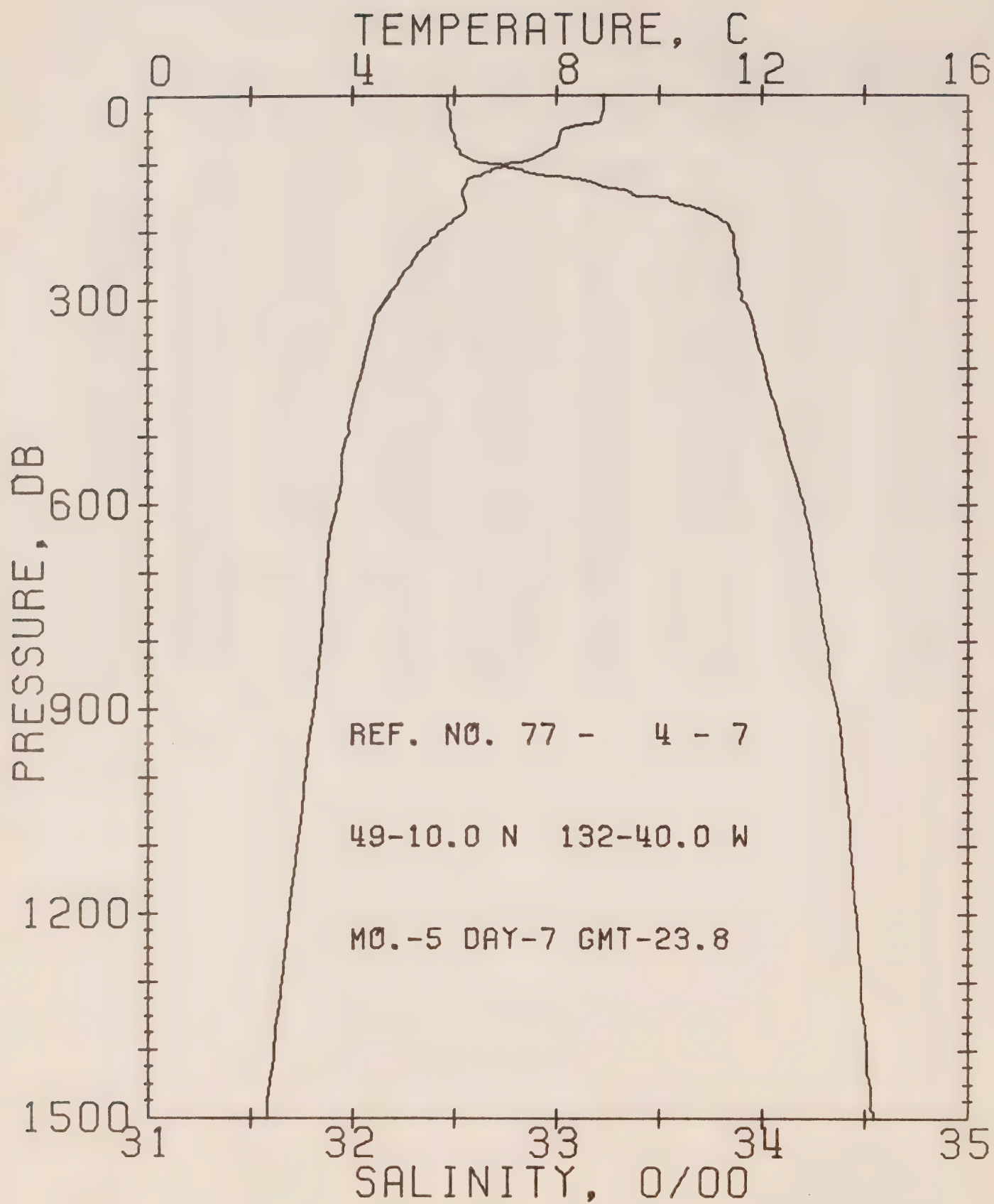
DATE 7/ 5/77

STATION 6

POSITION 49- 2.0N, 130-40.0W GMT 16.6

RESULTS OF STP CAST 185 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.12	32.47	0	25.14	282.9	0.0	0.0	1484.
10	9.12	32.48	10	25.15	282.9	0.28	0.01	1484.
20	9.11	32.48	20	25.15	282.6	0.57	0.06	1484.
30	9.08	32.48	30	25.16	282.4	0.85	0.13	1484.
50	8.47	32.48	50	25.25	273.8	1.41	0.36	1482.
75	8.22	32.54	75	25.34	265.7	2.09	0.79	1482.
100	6.95	32.96	99	25.84	217.9	2.69	1.33	1478.
125	6.69	33.26	124	26.12	192.6	3.20	1.91	1478.
150	6.74	33.53	149	26.32	173.4	3.66	2.55	1479.
175	6.59	33.82	174	26.57	150.3	4.06	3.21	1479.
200	6.39	33.87	199	26.64	144.0	4.43	3.92	1478.
225	6.10	33.90	223	26.70	138.7	4.78	4.68	1478.
250	5.77	33.90	248	26.74	135.0	5.12	5.51	1477.
300	5.17	33.90	298	26.81	128.3	5.78	7.34	1475.
400	4.56	33.98	397	26.94	116.1	7.00	11.68	1474.
500	4.16	34.07	496	27.05	106.4	8.11	16.79	1474.
600	3.85	34.17	595	27.17	96.2	9.12	22.46	1475.
800	3.70	34.32	793	27.30	85.0	10.92	35.25	1478.
1000	3.24	34.41	991	27.42	74.6	12.51	49.78	1479.
1200	2.89	34.46	1188	27.49	68.4	13.94	65.82	1481.
1500	2.41	34.54	1484	27.59	58.6	15.83	91.72	1484.



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REFERENCE NO. 77- 4- 7

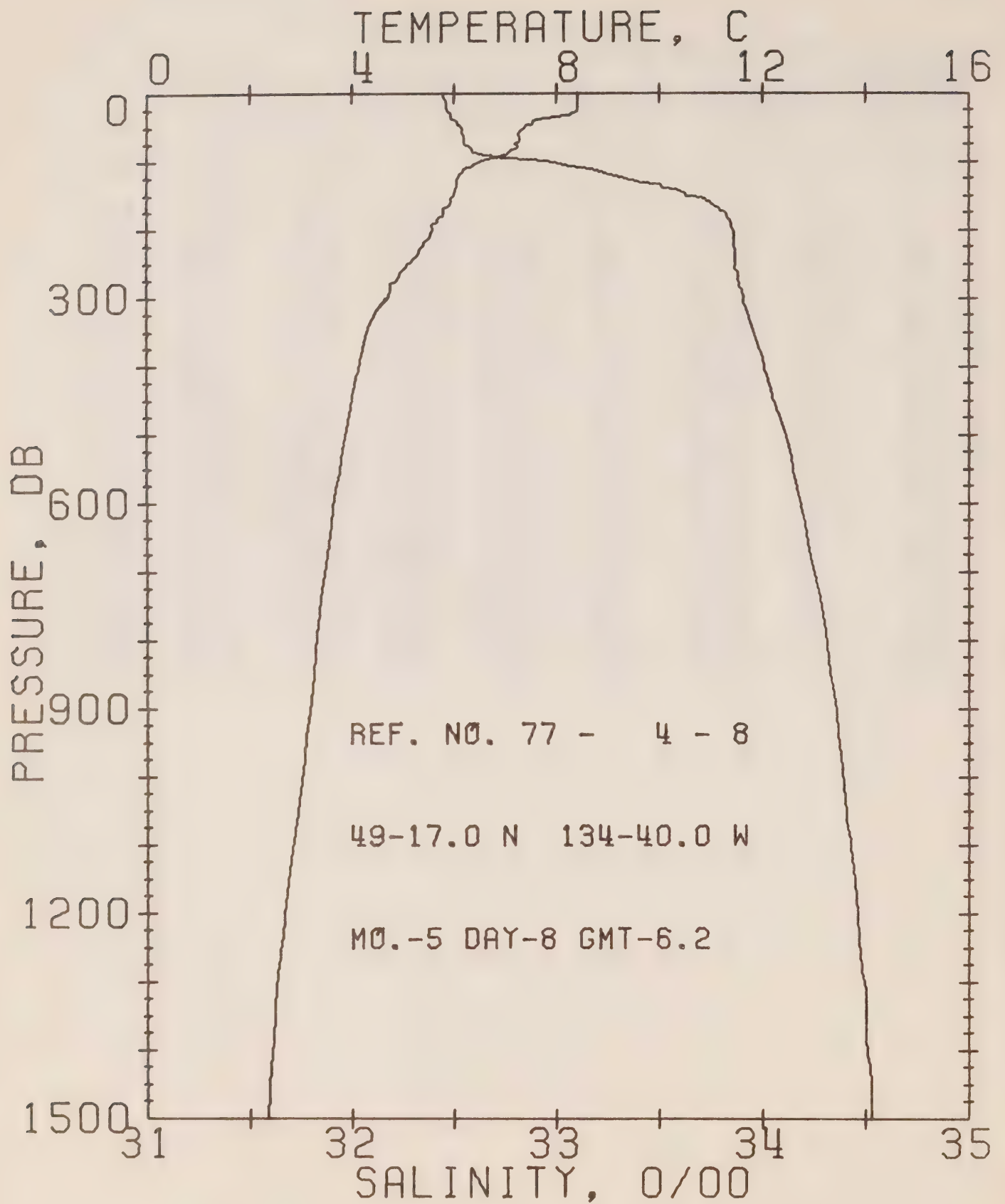
DATE 7/ 5/77

STATION 7

POSITION 49-10.0N, 132-40.0W GMT 23.8

RESULTS OF STP CAST 170 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. FN	SOUND
0	8.93	32.47	0	25.17	280.1	0.0	0.0	1483.
10	8.93	32.47	10	25.18	280.4	0.28	0.01	1483.
20	8.92	32.47	20	25.18	280.3	0.56	0.06	1483.
30	8.89	32.48	30	25.19	279.5	0.84	0.13	1484.
50	8.12	32.48	50	25.31	268.5	1.39	0.35	1481.
75	8.01	32.51	75	25.34	265.4	2.06	0.78	1481.
100	7.07	32.67	99	25.60	241.1	2.70	1.35	1478.
125	6.24	33.15	124	26.09	195.1	3.25	1.98	1476.
150	6.18	33.51	149	26.38	167.8	3.71	2.62	1476.
175	6.16	33.76	174	26.57	149.5	4.11	3.28	1477.
200	5.71	33.85	199	26.70	137.4	4.47	3.96	1476.
225	5.33	33.86	223	26.76	132.4	4.80	4.69	1475.
250	5.12	33.88	248	26.80	128.7	5.13	5.48	1474.
300	4.51	33.90	298	26.88	120.9	5.76	7.23	1472.
400	4.20	34.01	397	27.00	110.2	6.90	11.32	1473.
500	3.89	34.11	496	27.11	100.5	7.96	16.14	1473.
600	3.68	34.20	595	27.21	91.9	8.92	21.53	1474.
800	3.37	34.31	793	27.33	81.8	10.65	33.82	1476.
1000	3.06	34.40	990	27.43	73.2	12.19	47.99	1478.
1200	2.76	34.46	1188	27.50	66.9	13.59	63.67	1481.
1500	2.32	34.54	1484	27.60	57.5	15.47	89.37	1484.



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REFERENCE NO. 77- 4- 8

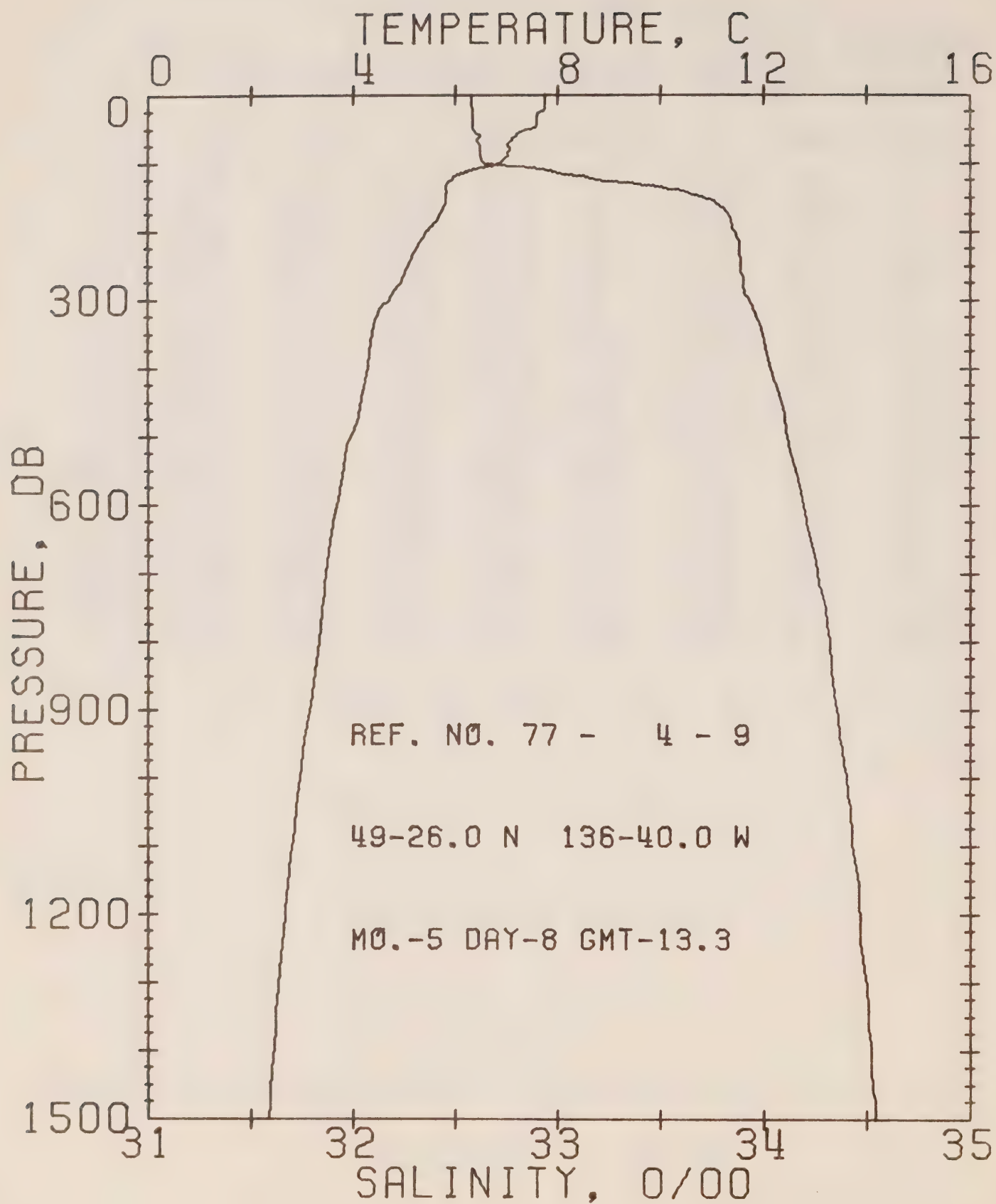
DATE 8/ 5/77

STATION 8

POSITION 49-17.0N, 134-40.0W GMT 6.2

RESULTS OF STP CAST 169 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.44	32.45	0	25.23	274.5	0.0	0.0	1481.
10	8.43	32.46	10	25.24	274.3	0.27	0.01	1481.
20	8.43	32.46	20	25.24	274.2	0.55	0.06	1482.
30	8.33	32.48	30	25.27	271.4	0.82	0.13	1481.
50	7.36	32.54	50	25.46	254.2	1.34	0.34	1478.
75	7.22	32.56	75	25.49	251.2	1.98	0.74	1478.
100	6.50	32.98	99	25.92	211.0	2.57	1.27	1476.
125	6.06	33.35	124	26.27	178.0	3.06	1.82	1475.
150	5.98	33.63	149	26.50	156.4	3.47	2.40	1476.
175	5.78	33.82	174	26.67	140.1	3.83	3.00	1475.
200	5.56	33.85	199	26.73	135.2	4.18	3.66	1475.
225	5.36	33.86	223	26.76	132.7	4.51	4.39	1475.
250	5.09	33.87	248	26.79	129.1	4.84	5.18	1474.
300	4.70	33.91	298	26.87	122.2	5.47	6.94	1473.
400	4.13	34.01	397	27.01	109.6	6.62	11.03	1473.
500	3.87	34.11	496	27.12	100.1	7.67	15.83	1473.
600	3.65	34.19	595	27.20	92.7	8.63	21.22	1474.
800	3.31	34.31	793	27.33	81.1	10.36	33.55	1476.
1000	3.01	34.39	990	27.42	73.4	11.91	47.71	1478.
1200	2.68	34.46	1188	27.51	65.9	13.30	63.26	1480.
1500	2.35	34.53	1484	27.59	58.6	15.15	88.65	1484.



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REFERENCE NO. 77- 4- 9

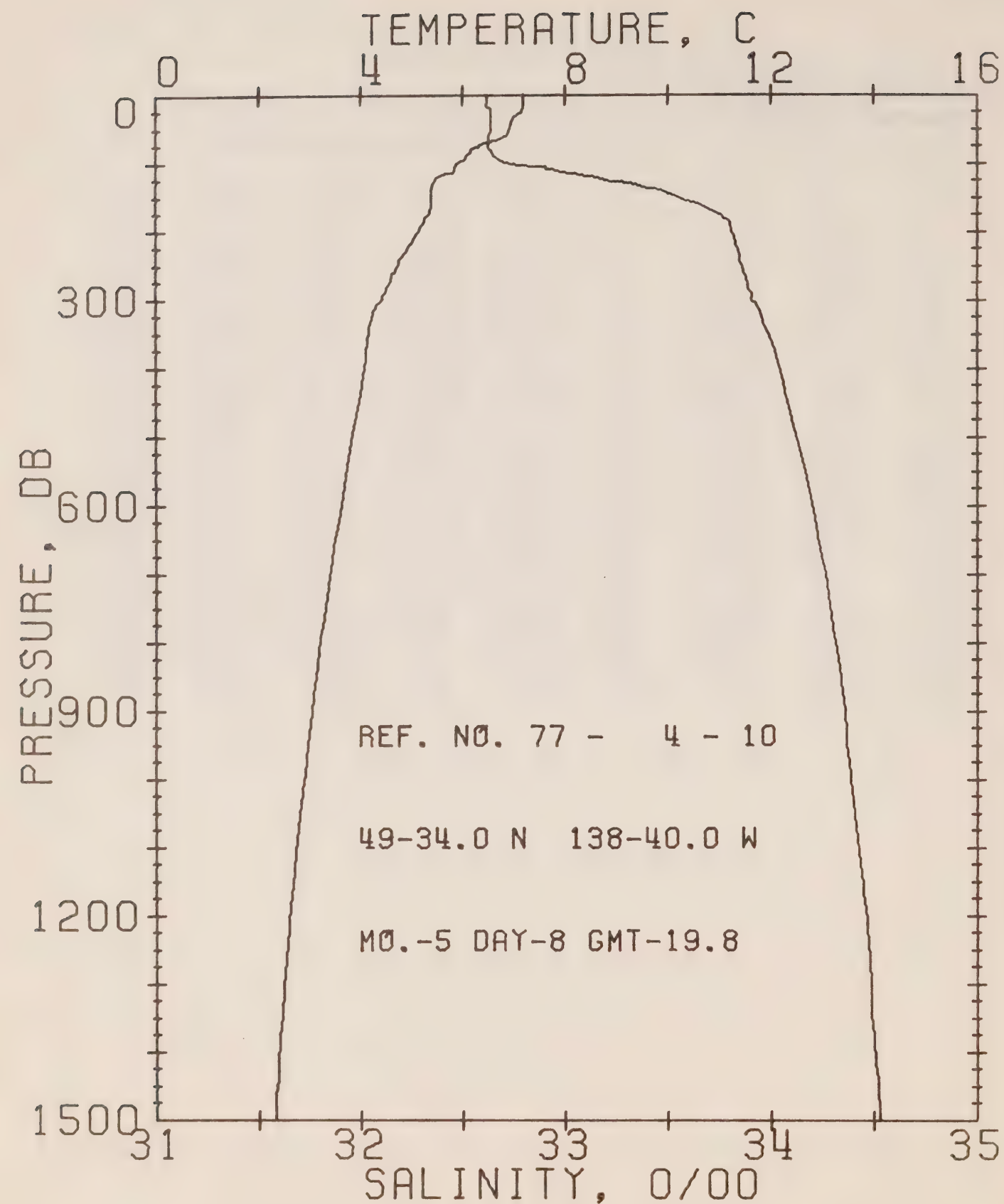
DATE 8/ 5/77

STATION 9

POSITION 49-26.0N, 136-40.0W GMT 13.3

RESULTS OF STP CAST 160 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.75	32.58	0	25.44	255.2	0.0	0.0	1479.
10	7.75	32.58	10	25.44	255.6	0.26	0.01	1479.
20	7.74	32.58	20	25.44	255.3	0.51	0.05	1479.
30	7.61	32.59	30	25.46	253.3	0.77	0.12	1479.
50	7.46	32.59	50	25.48	251.5	1.27	0.32	1479.
75	7.04	32.62	75	25.57	244.1	1.89	0.72	1477.
100	6.87	32.64	99	25.60	240.8	2.50	1.26	1477.
125	5.90	33.21	124	26.18	186.1	3.02	1.86	1474.
150	5.82	33.71	149	26.58	148.5	3.43	2.43	1475.
175	5.68	33.83	174	26.69	138.2	3.78	3.01	1475.
200	5.43	33.86	199	26.74	133.5	4.12	3.66	1475.
225	5.22	33.88	223	26.79	129.7	4.45	4.37	1474.
250	5.06	33.89	248	26.81	127.4	4.77	5.15	1474.
300	4.70	33.93	298	26.89	120.8	5.40	6.90	1473.
400	4.28	34.03	397	27.01	109.3	6.53	10.94	1473.
500	3.94	34.11	496	27.11	100.5	7.58	15.73	1474.
600	3.68	34.19	595	27.20	92.6	8.54	21.13	1474.
800	3.33	34.32	793	27.34	80.8	10.26	33.38	1476.
1000	2.96	34.40	990	27.44	72.1	11.80	47.45	1478.
1200	2.66	34.47	1188	27.51	65.2	13.17	62.79	1480.
1500	2.35	34.54	1484	27.60	57.8	15.01	88.00	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 10

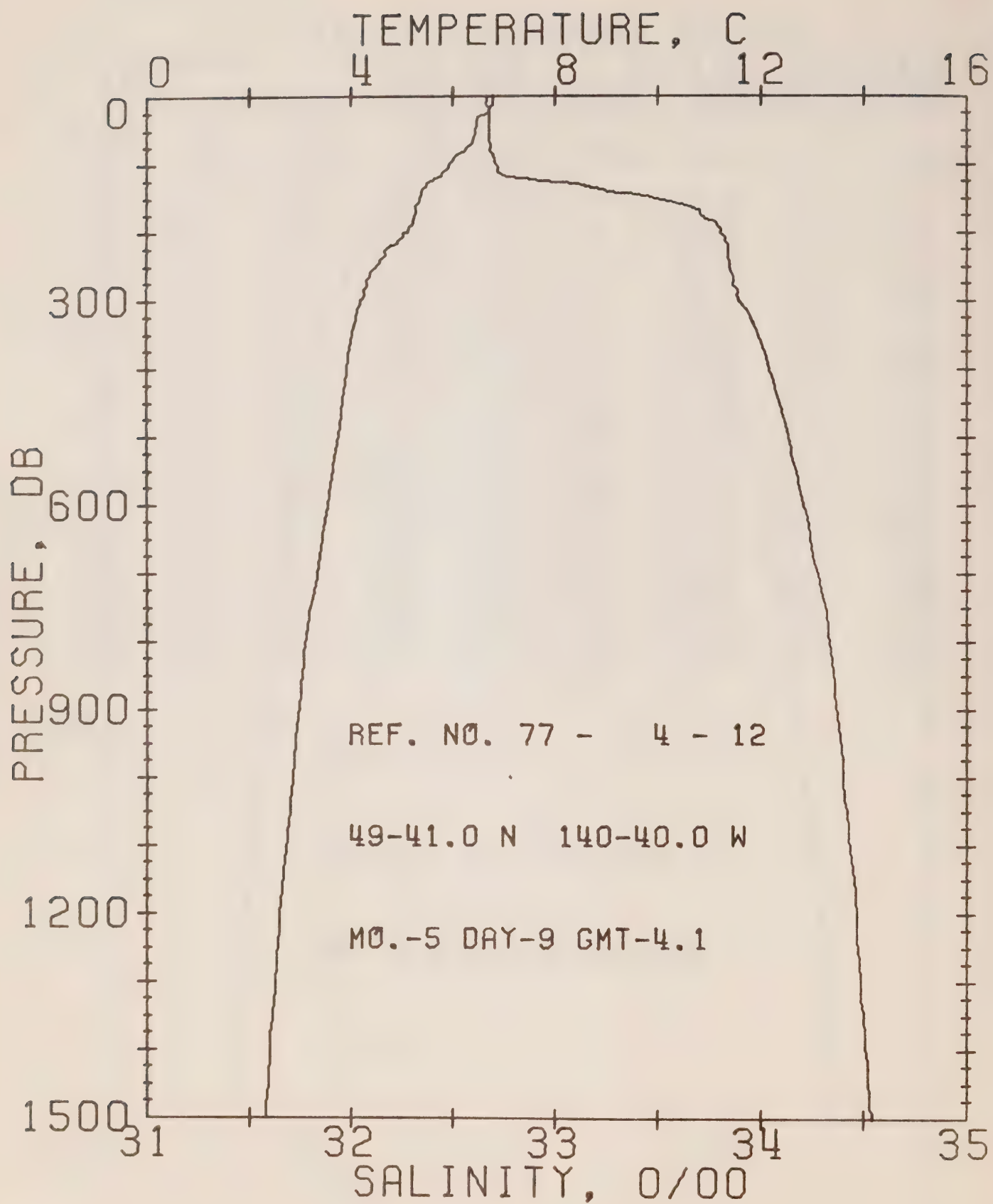
DATE 8/ 5/77

STATION 10

POSITION 49-34.0N, 138-40.0W GMT 19.8

RESULTS OF STP CAST 145 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.21	32.62	0	25.54	245.1	0.0	0.0	1477.
10	7.21	32.62	10	25.54	245.4	0.25	0.01	1477.
20	7.18	32.64	20	25.56	243.9	0.49	0.05	1477.
30	7.07	32.64	30	25.58	242.4	0.73	0.11	1477.
50	6.92	32.64	50	25.60	240.8	1.22	0.31	1476.
75	6.32	32.63	75	25.67	234.4	1.81	0.69	1474.
100	5.86	32.74	99	25.81	220.9	2.39	1.20	1473.
125	5.45	33.22	124	26.24	180.5	2.89	1.77	1473.
150	5.39	33.55	149	26.51	155.1	3.30	2.35	1473.
175	5.33	33.75	174	26.67	140.1	3.67	2.96	1474.
200	5.13	33.81	199	26.74	133.5	4.01	3.60	1473.
225	4.92	33.84	223	26.79	129.4	4.34	4.32	1473.
250	4.71	33.86	248	26.83	125.8	4.65	5.09	1472.
300	4.41	33.91	298	26.90	119.0	5.26	6.80	1472.
400	4.06	34.04	397	27.04	106.3	6.38	10.75	1472.
500	3.83	34.12	496	27.13	98.5	7.40	15.45	1473.
600	3.61	34.20	595	27.21	91.3	8.35	20.75	1474.
800	3.19	34.31	793	27.34	79.9	10.05	32.88	1476.
1000	2.89	34.39	990	27.43	72.2	11.57	46.75	1478.
1200	2.61	34.47	1188	27.52	64.5	12.94	62.06	1480.
1500	2.31	34.53	1484	27.59	58.1	14.78	87.33	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 12

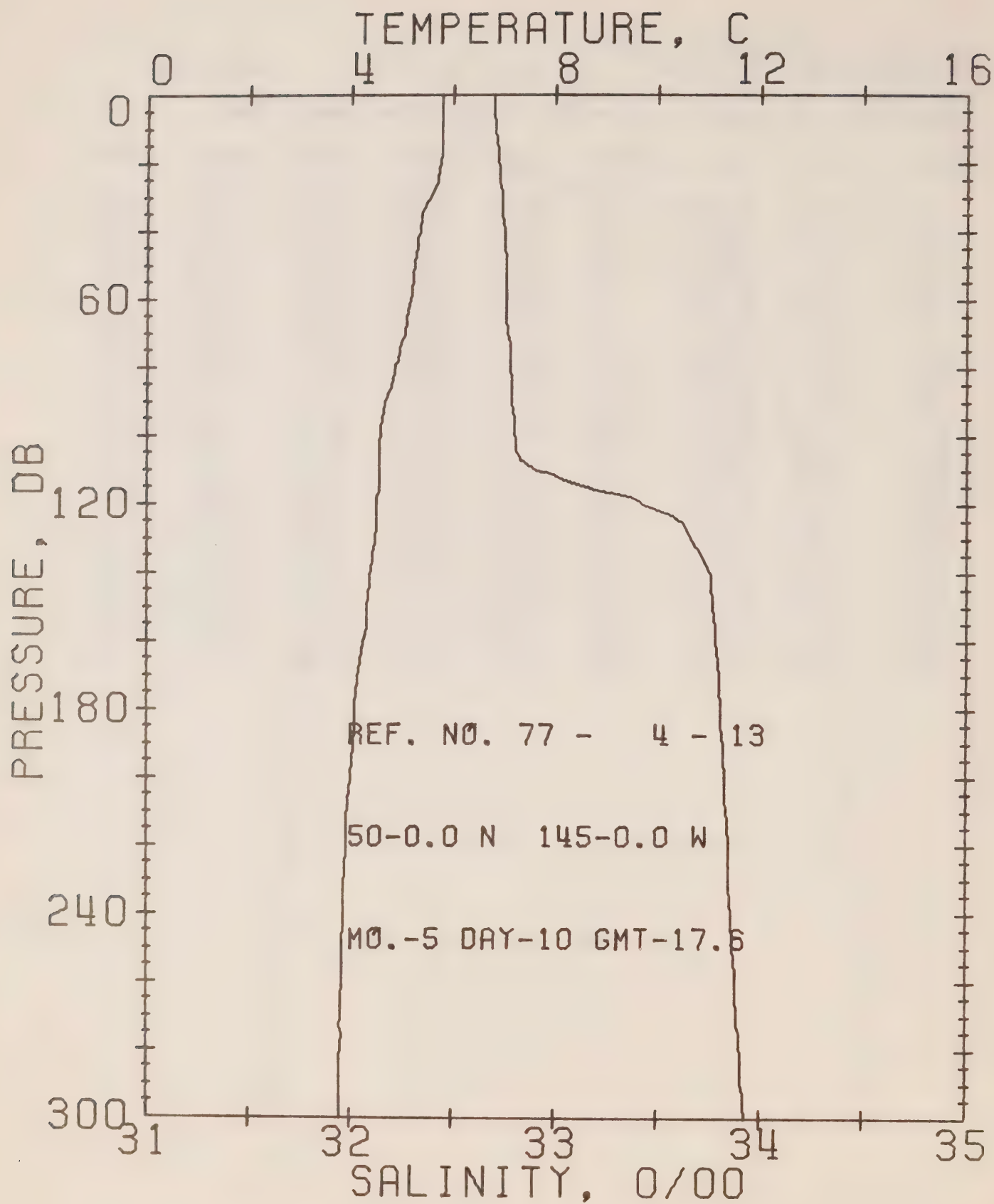
DATE 9/ 5/77

STATION 11

POSITION 49-41.0N, 140-40.0W GMT 4.1

RESULTS OF STP CAST 169 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.81	32.67	0	25.64	236.3	0.0	0.0	1475.
10	6.80	32.67	10	25.64	236.4	0.24	0.01	1475.
20	6.74	32.68	20	25.65	235.1	0.47	0.05	1475.
30	6.50	32.68	30	25.68	232.2	0.71	0.11	1475.
50	6.46	32.68	50	25.69	231.9	1.17	0.30	1475.
75	6.32	32.69	75	25.71	229.9	1.75	0.67	1475.
100	5.95	32.71	99	25.78	224.0	2.32	1.17	1473.
125	5.58	32.96	124	26.02	201.2	2.86	1.80	1473.
150	5.36	33.49	149	26.46	159.8	3.31	2.42	1473.
175	5.26	33.71	174	26.65	141.9	3.68	3.03	1473.
200	5.11	33.81	199	26.74	133.3	4.02	3.68	1473.
225	4.66	33.84	223	26.82	126.3	4.35	4.39	1472.
250	4.51	33.85	248	26.84	124.1	4.66	5.15	1472.
300	4.20	33.89	298	26.91	118.3	5.26	6.84	1471.
400	3.92	34.04	397	27.05	105.1	6.36	10.75	1472.
500	3.74	34.13	496	27.15	96.8	7.37	15.37	1473.
600	3.55	34.21	595	27.23	90.0	8.31	20.60	1474.
800	3.10	34.33	793	27.37	77.3	9.97	32.44	1475.
1000	2.85	34.40	990	27.44	71.1	11.45	45.96	1478.
1200	2.60	34.47	1188	27.52	64.4	12.80	61.11	1480.
1500	2.31	34.54	1484	27.60	57.4	14.64	86.34	1484.



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REFERENCE NO. 77- 4- 13

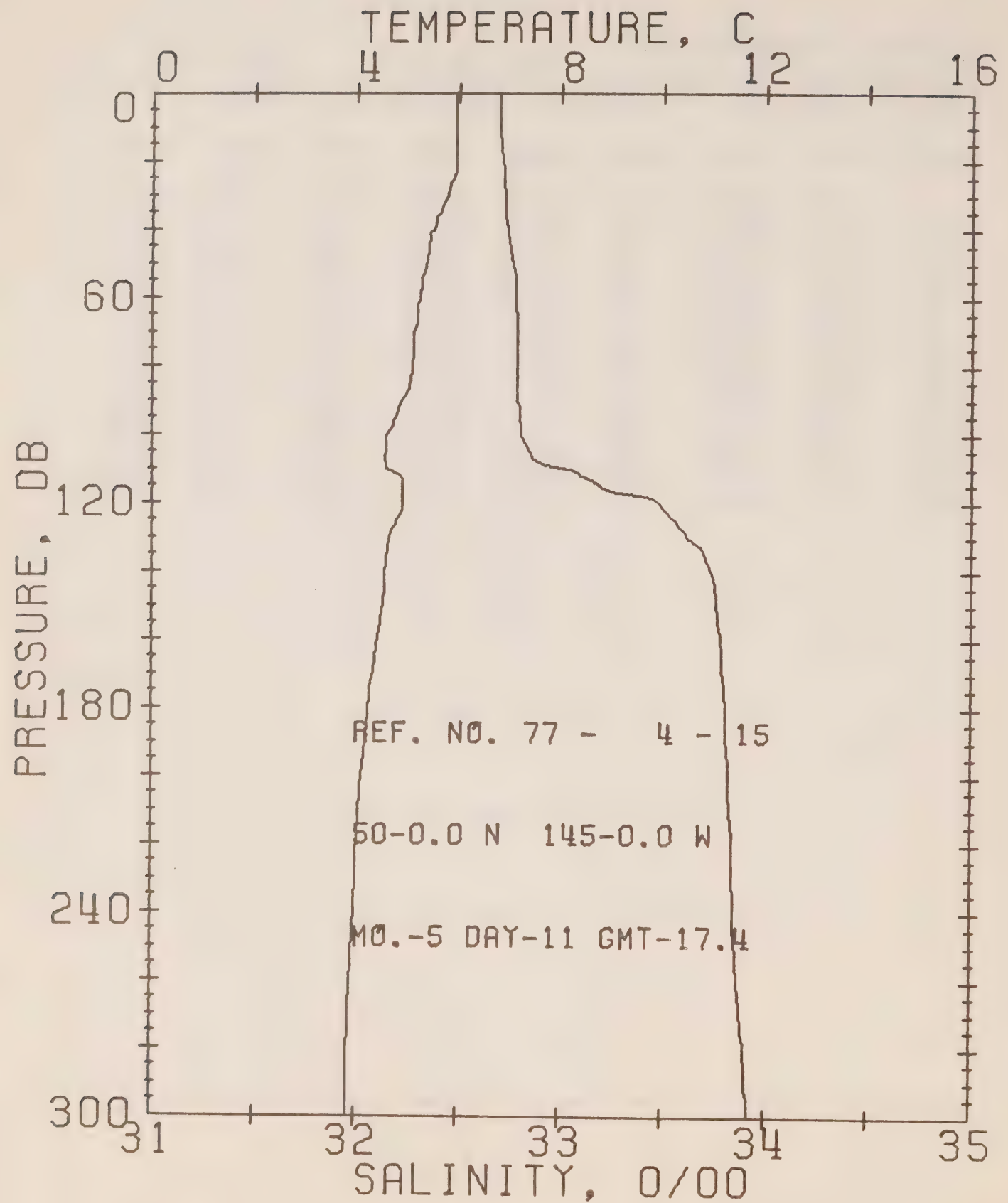
DATE 10/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.6

RESULTS OF STP CAST 87 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.79	32.70	0	25.79	221.8	0.0	0.0	1471.
10	5.79	32.71	10	25.80	221.4	0.22	0.01	1471.
20	5.76	32.72	20	25.81	220.0	0.44	0.05	1471.
30	5.55	32.74	30	25.85	216.6	0.66	0.10	1471.
50	5.24	32.76	50	25.90	211.9	1.09	0.28	1470.
75	4.95	32.78	75	25.95	207.5	1.62	0.61	1469.
100	4.59	32.80	99	26.01	202.1	2.13	1.07	1468.
125	4.52	33.62	124	26.66	140.4	2.57	1.57	1469.
150	4.33	33.77	149	26.80	127.4	2.90	2.04	1469.
175	4.11	33.80	174	26.85	123.0	3.22	2.55	1469.
200	3.99	33.83	199	26.88	119.8	3.52	3.13	1469.
225	3.90	33.85	223	26.91	117.5	3.82	3.78	1469.
250	3.85	33.87	248	26.93	115.7	4.11	4.48	1469.
300	3.79	33.93	298	26.98	111.0	4.68	6.07	1469.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 15

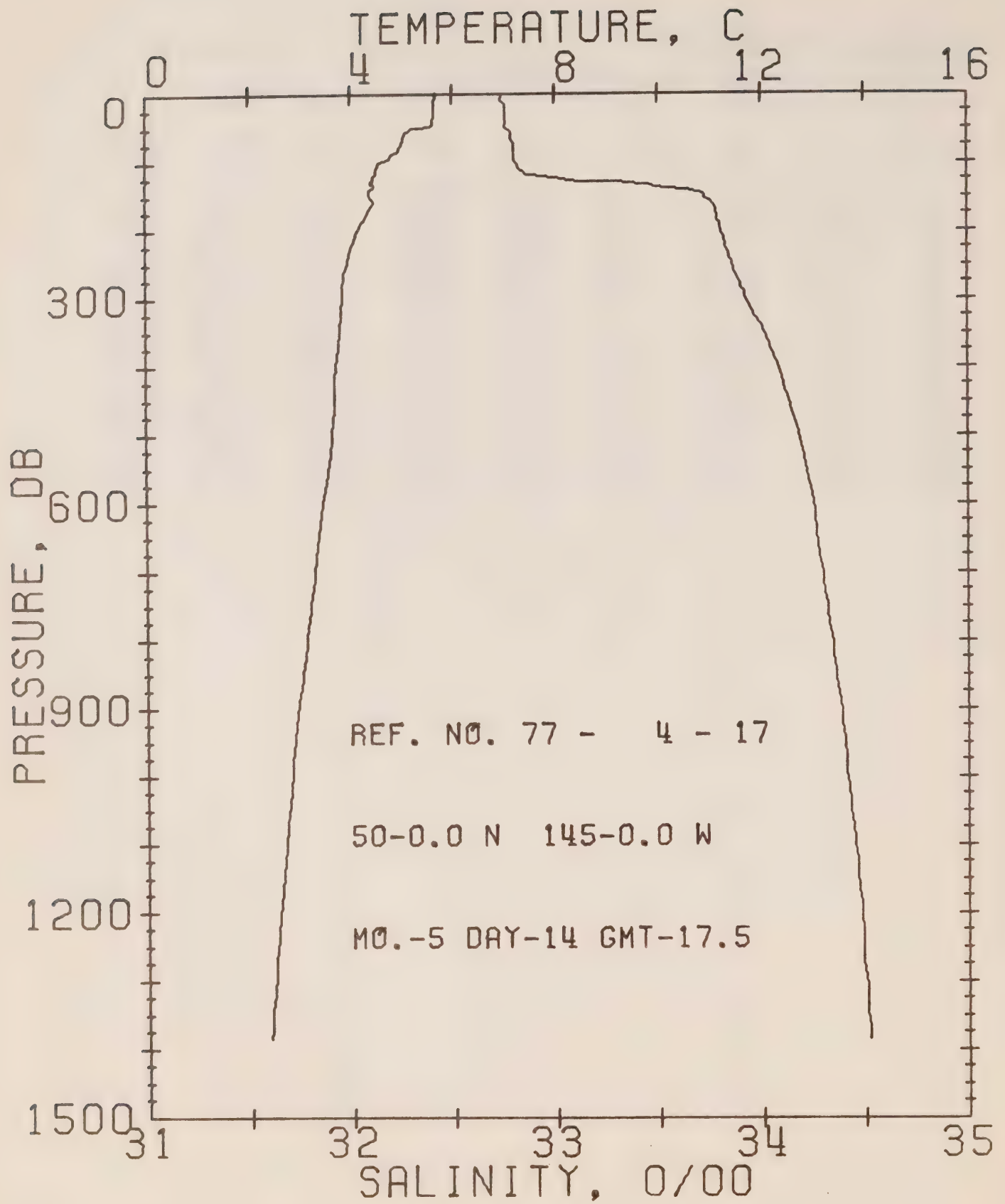
DATE 11/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.4

RESULTS OF STP CAST 92 POINTS TAKEN FROM ANALCG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.95	32.70	0	25.77	223.6	0.0	0.0	1472.
10	5.95	32.70	10	25.77	223.9	0.22	0.01	1472.
20	5.94	32.72	20	25.78	222.8	0.45	0.05	1472.
30	5.78	32.73	30	25.81	220.1	0.67	0.10	1472.
50	5.38	32.77	50	25.89	212.9	1.10	0.28	1470.
75	5.13	32.79	75	25.94	208.7	1.63	0.61	1470.
100	4.59	32.81	99	26.01	201.6	2.14	1.07	1468.
125	4.78	33.56	124	26.58	147.6	2.59	1.58	1470.
150	4.53	33.76	149	26.77	130.1	2.93	2.05	1470.
175	4.27	33.80	174	26.83	124.6	3.25	2.58	1469.
200	4.10	33.82	199	26.86	121.7	3.55	3.17	1469.
225	4.01	33.84	223	26.89	119.4	3.85	3.82	1469.
250	3.94	33.86	248	26.91	117.8	4.15	4.54	1469.
300	3.83	33.92	298	26.97	112.2	4.72	6.14	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 17

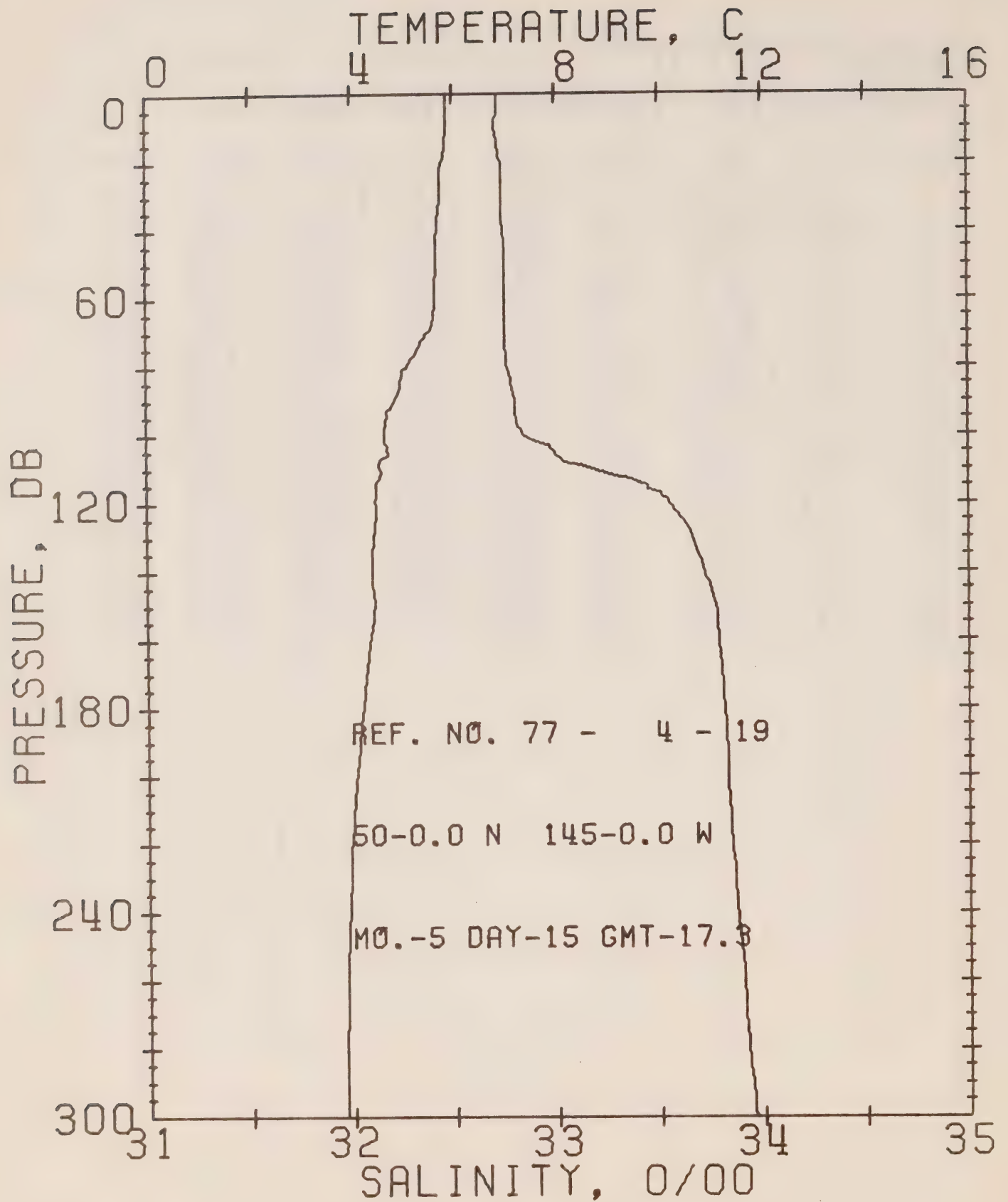
DATE 14/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.5

RESULTS OF STP CAST 146 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.67	32.74	0	25.83	217.4	0.0	0.0	1471.
10	5.66	32.74	10	25.83	217.7	0.22	0.01	1471.
20	5.65	32.76	20	25.85	216.1	0.43	0.04	1471.
30	5.65	32.76	30	25.85	216.2	0.65	0.10	1471.
50	5.35	32.77	50	25.89	212.3	1.08	0.28	1470.
75	4.99	32.80	75	25.96	206.5	1.60	0.61	1469.
100	4.61	32.81	99	26.01	201.9	2.11	1.06	1468.
125	4.44	33.07	124	26.23	180.8	2.61	1.63	1468.
150	4.39	33.73	149	26.76	131.3	2.98	2.14	1469.
175	4.32	33.78	174	26.81	126.7	3.30	2.67	1469.
200	4.14	33.80	199	26.85	123.2	3.61	3.27	1469.
225	4.01	33.83	223	26.88	120.1	3.91	3.93	1469.
250	3.92	33.86	248	26.91	117.3	4.21	4.65	1469.
300	3.83	33.93	298	26.98	111.4	4.78	6.25	1470.
400	3.71	34.08	397	27.11	99.6	5.83	9.99	1471.
500	3.63	34.18	496	27.20	92.2	6.79	14.38	1472.
600	3.45	34.25	595	27.27	85.9	7.68	19.36	1473.
800	3.12	34.35	793	27.38	76.7	9.31	30.95	1475.
1000	2.81	34.41	990	27.46	69.7	10.77	44.31	1477.
1200	2.56	34.48	1188	27.53	63.2	12.10	59.15	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 19

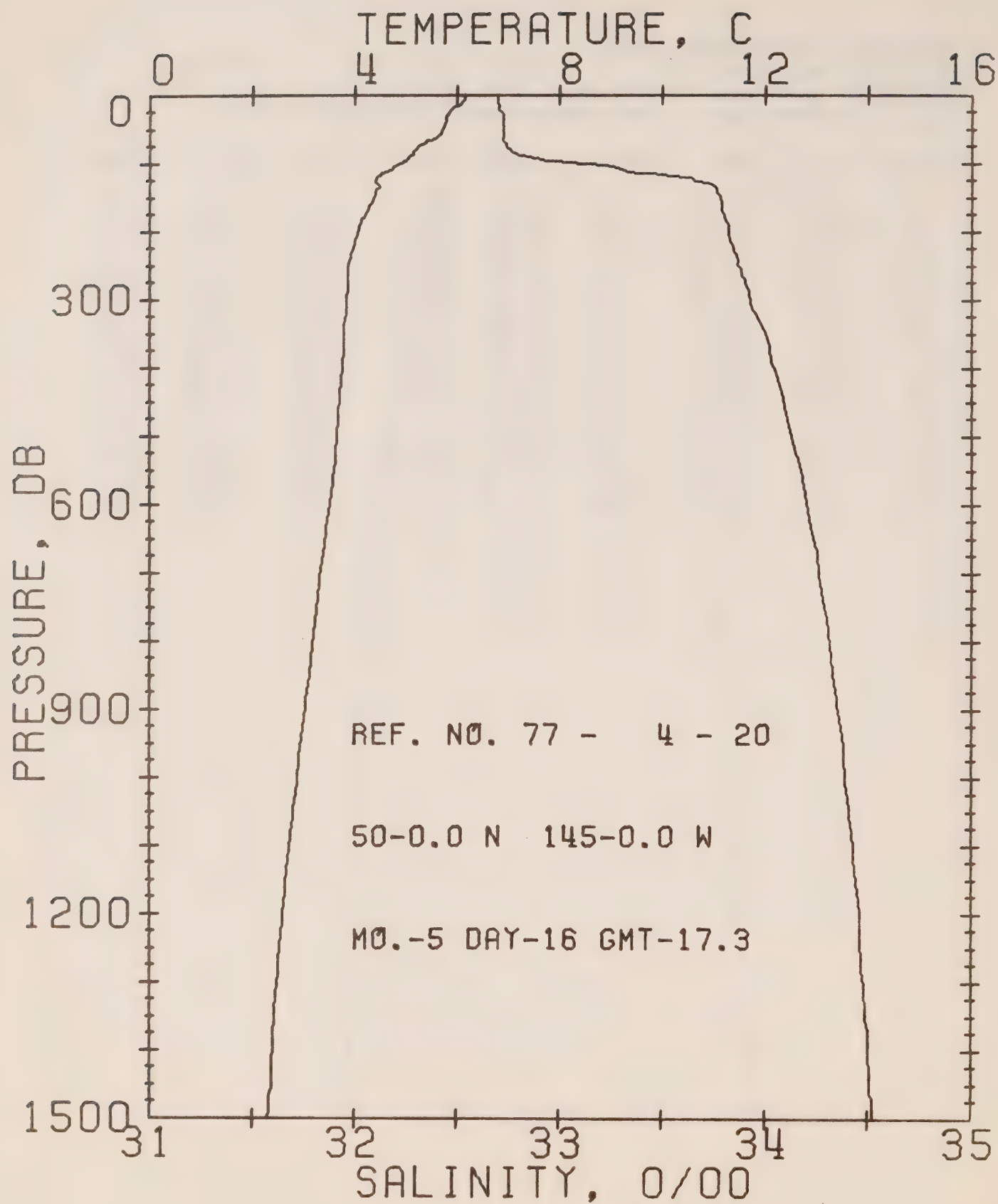
DATE 15/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 97 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	5.90	32.72	0	25.79	221.6	0.0	0.0	1472.
10	5.89	32.71	10	25.78	222.6	0.22	0.01	1472.
20	5.79	32.74	20	25.82	219.2	0.44	0.05	1472.
30	5.75	32.74	30	25.82	218.9	0.66	0.10	1472.
50	5.68	32.75	50	25.84	217.5	1.10	0.28	1472.
75	5.29	32.75	75	25.89	213.2	1.64	0.62	1470.
100	4.64	32.84	99	26.03	199.9	2.16	1.08	1468.
125	4.47	33.61	124	26.66	140.3	2.57	1.56	1469.
150	4.45	33.77	149	26.79	128.4	2.91	2.02	1470.
175	4.24	33.81	174	26.84	123.6	3.22	2.54	1469.
200	4.07	33.83	199	26.87	120.7	3.52	3.13	1469.
225	3.95	33.86	223	26.91	117.7	3.82	3.77	1469.
250	3.89	33.89	248	26.94	114.9	4.11	4.48	1469.
300	3.85	33.96	298	27.00	109.4	4.68	6.05	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 20

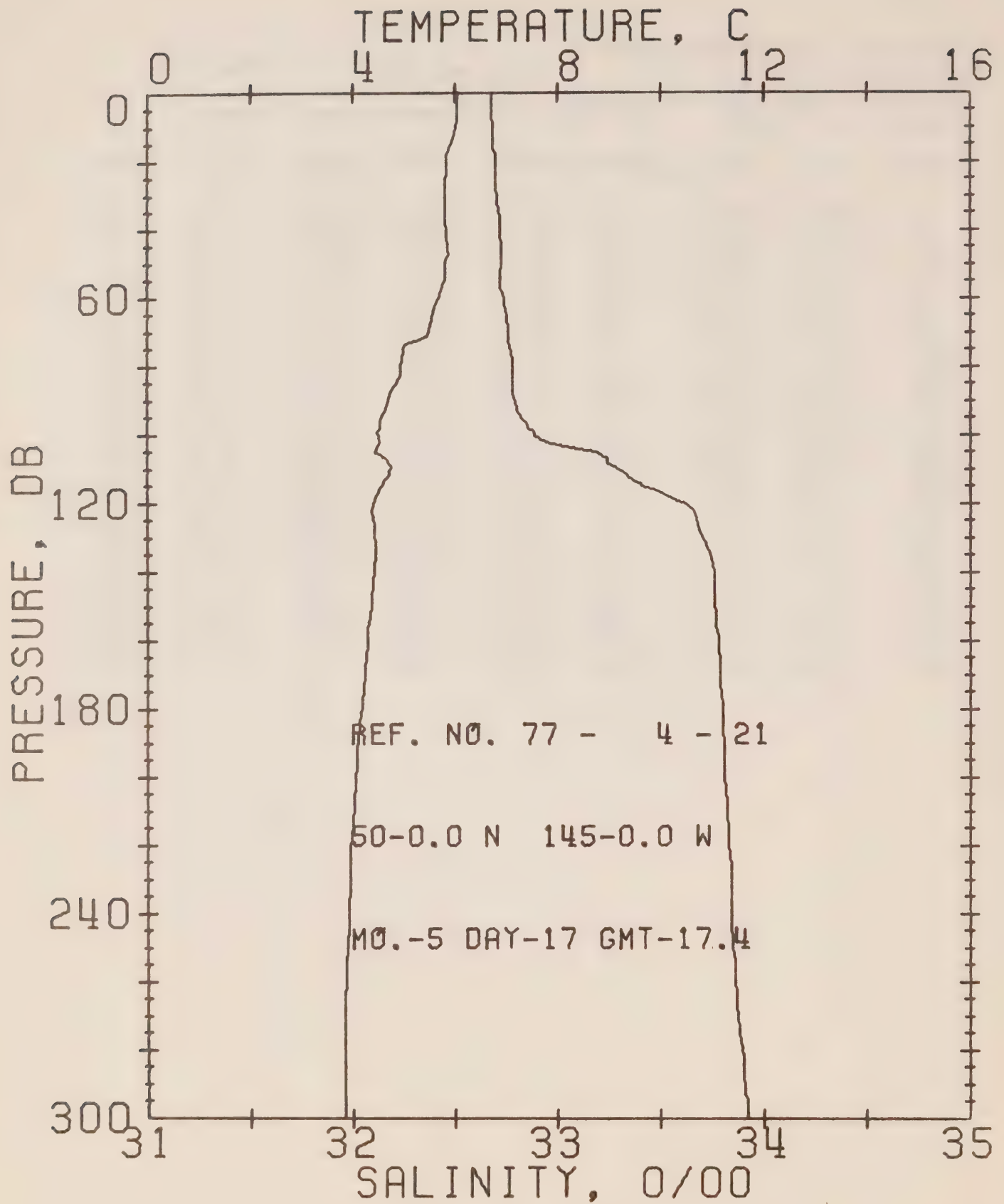
DATE 16/ 5/77

STATION p

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 187 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SJUND
0	6.16	32.70	0	25.74	226.1	0.0	0.0	1473.
10	6.11	32.70	10	25.75	225.8	0.23	0.01	1473.
20	5.91	32.71	20	25.78	222.8	0.45	0.05	1472.
30	5.79	32.73	30	25.81	220.1	0.67	0.10	1472.
50	5.72	32.73	50	25.82	219.5	1.11	0.28	1472.
75	5.22	32.74	75	25.89	213.4	1.66	0.63	1470.
100	4.92	33.11	99	26.21	182.6	2.17	1.08	1470.
125	4.41	33.66	124	26.70	136.2	2.56	1.53	1469.
150	4.36	33.78	149	26.80	126.9	2.88	1.99	1469.
175	4.20	33.80	174	26.84	124.0	3.20	2.51	1469.
200	4.05	33.82	199	26.87	121.2	3.50	3.09	1469.
225	3.96	33.84	223	26.90	118.6	3.81	3.74	1469.
250	3.88	33.87	248	26.92	116.1	4.10	4.45	1469.
300	3.85	33.93	298	26.98	111.6	4.67	6.04	1470.
400	3.75	34.04	397	27.07	103.0	5.74	9.85	1471.
500	3.65	34.13	496	27.15	96.5	6.73	14.41	1472.
600	3.51	34.20	595	27.22	90.2	7.66	19.63	1474.
800	3.17	34.31	793	27.35	79.7	9.36	31.67	1476.
1000	2.88	34.39	990	27.43	72.2	10.87	45.53	1478.
1200	2.60	34.46	1188	27.51	65.0	12.24	60.87	1480.
1500	2.30	34.52	1483	27.59	58.8	14.10	86.35	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 21

DATE 17/ 5/77

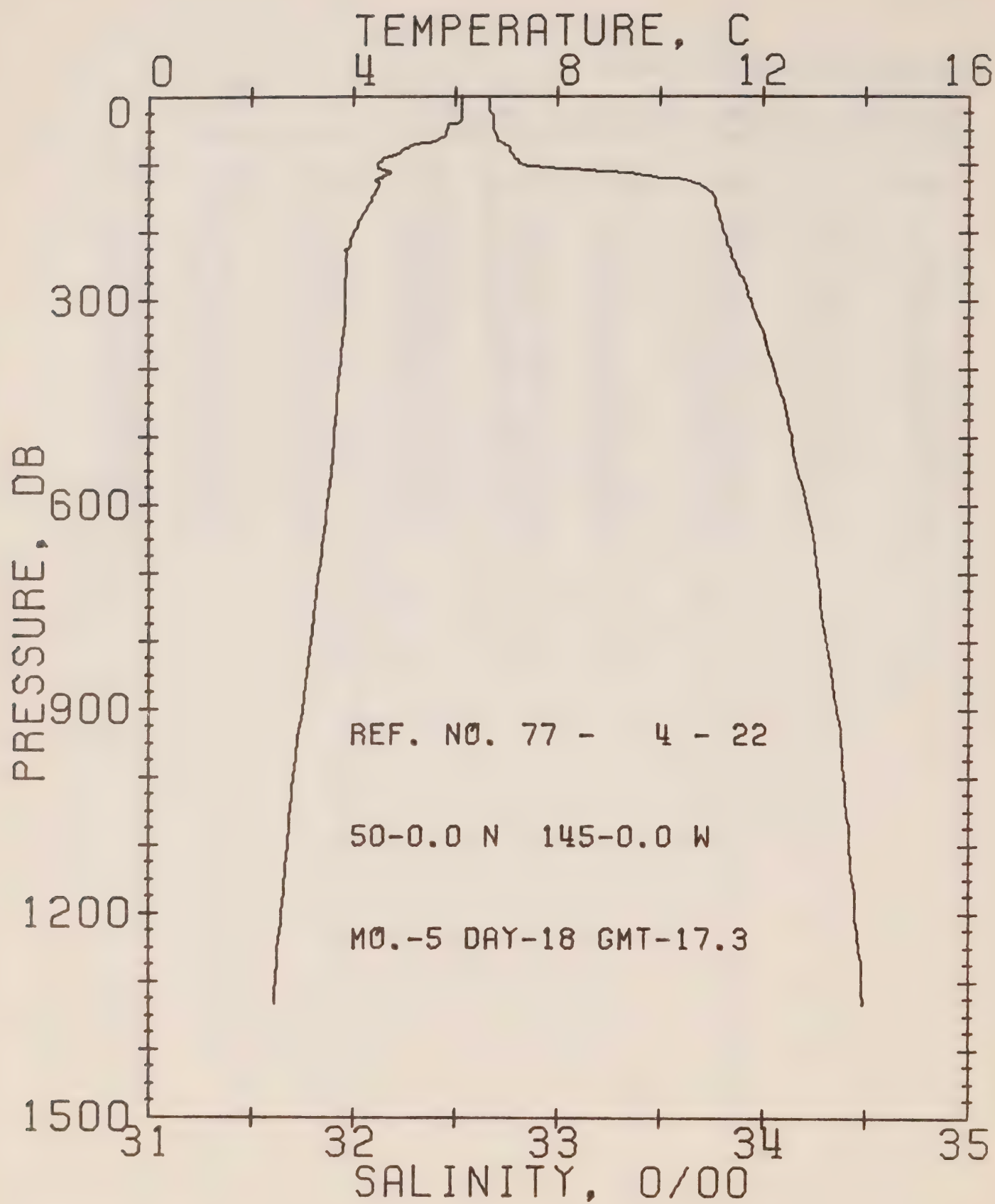
STATION P

POSITION 50- 0.0N, 145- 0.0W

GMT 17.4

RESULTS OF STP CAST 105 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.04	32.68	0	25.74	226.2	0.0	0.0	1472.
10	6.03	32.69	10	25.75	225.7	0.23	0.01	1472.
20	5.84	32.70	20	25.78	222.8	0.45	0.05	1472.
30	5.81	32.71	30	25.79	222.0	0.67	0.10	1472.
50	5.82	32.73	50	25.81	220.7	1.12	0.28	1472.
75	4.97	32.77	75	25.94	208.3	1.66	0.63	1469.
100	4.50	32.89	99	26.08	194.7	2.17	1.08	1468.
125	4.42	33.67	124	26.71	135.1	2.57	1.54	1469.
150	4.37	33.76	149	26.79	128.3	2.90	2.00	1469.
175	4.21	33.79	174	26.83	124.6	3.21	2.52	1469.
200	4.05	33.81	199	26.86	121.9	3.52	3.11	1469.
225	3.94	33.84	223	26.89	118.9	3.82	3.76	1469.
250	3.89	33.85	248	26.91	117.6	4.12	4.47	1469.
300	3.84	33.92	298	26.97	112.3	4.69	6.08	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 22

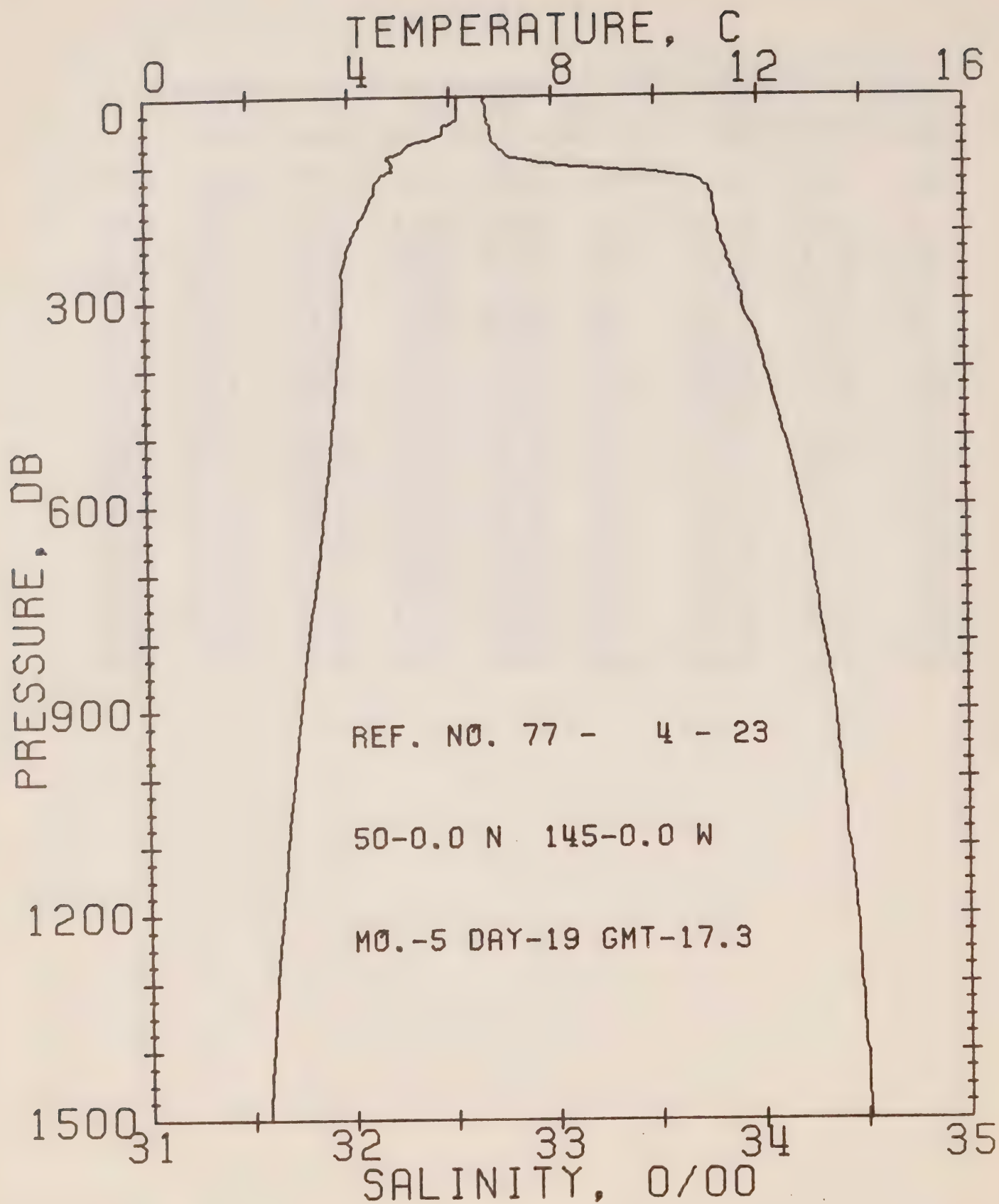
DATE 18/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 181 POINTS TAKEN FROM ANALOG TRACE

PRFSS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.14	32.67	0	25.72	228.1	0.0	0.0	1473.
10	6.14	32.67	10	25.72	228.5	0.23	0.01	1473.
20	6.13	32.67	20	25.72	228.5	0.46	0.05	1473.
30	6.13	32.69	30	25.74	227.0	0.68	0.10	1473.
50	5.82	32.69	50	25.78	223.6	1.14	0.29	1472.
75	5.08	32.77	75	25.93	209.6	1.68	0.64	1470.
100	4.48	32.82	99	26.03	199.4	2.20	1.09	1468.
125	4.46	33.65	124	26.69	137.4	2.61	1.57	1469.
150	4.37	33.77	149	26.79	128.0	2.94	2.03	1469.
175	4.17	33.79	174	26.83	124.6	3.26	2.55	1469.
200	4.00	33.81	199	26.86	121.4	3.57	3.14	1469.
225	3.87	33.84	223	26.90	118.1	3.87	3.79	1468.
250	3.88	33.87	248	26.92	116.1	4.16	4.50	1469.
300	3.84	33.94	298	26.98	110.8	4.72	6.08	1470.
400	3.74	34.05	397	27.08	102.1	5.79	9.87	1471.
500	3.63	34.14	496	27.16	95.2	6.77	14.38	1472.
600	3.49	34.21	595	27.24	89.2	7.70	19.56	1473.
800	3.17	34.31	793	27.35	79.7	9.38	31.55	1476.
1000	2.83	34.40	990	27.44	71.2	10.88	45.28	1477.
1200	2.60	34.45	1188	27.51	65.8	12.25	60.59	1480.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 23

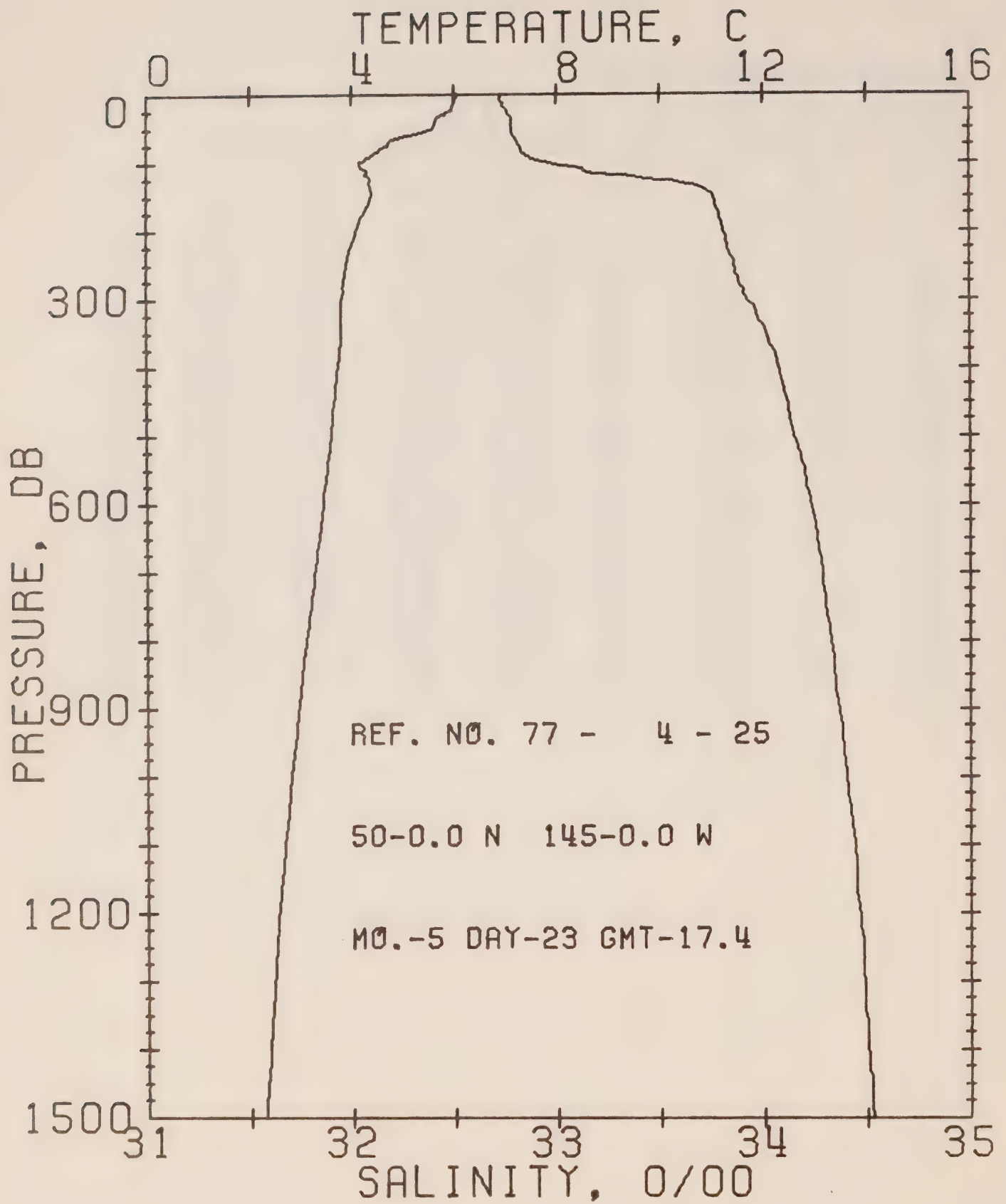
DATE 19/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 196 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	6.17	32.67	0	25.72	228.5	0.0	0.0	1473.
10	6.16	32.67	10	25.72	228.5	0.23	0.01	1473.
20	6.17	32.68	20	25.73	228.1	0.46	0.05	1473.
30	6.17	32.68	30	25.73	228.2	0.68	0.10	1473.
50	5.87	32.70	50	25.78	223.4	1.14	0.29	1472.
75	5.14	32.74	75	25.89	212.7	1.69	0.64	1470.
100	4.87	33.01	99	26.14	189.8	2.20	1.09	1469.
125	4.54	33.72	124	26.74	132.8	2.59	1.54	1469.
150	4.43	33.78	149	26.80	127.7	2.91	1.99	1469.
175	4.28	33.79	174	26.82	125.5	3.23	2.52	1469.
200	4.09	33.81	199	26.86	122.4	3.54	3.11	1469.
225	3.96	33.84	223	26.89	119.1	3.84	3.76	1469.
250	3.88	33.87	248	26.92	116.4	4.14	4.48	1469.
300	3.86	33.92	298	26.97	112.5	4.71	6.08	1470.
400	3.74	34.03	397	27.06	104.0	5.79	9.92	1471.
500	3.63	34.12	496	27.15	96.5	6.79	14.52	1472.
600	3.49	34.20	595	27.23	89.9	7.72	19.73	1473.
800	3.12	34.31	793	27.35	79.5	9.42	31.78	1475.
1000	2.82	34.39	990	27.44	71.6	10.92	45.53	1477.
1200	2.57	34.45	1188	27.51	65.1	12.28	60.81	1480.
1500	2.28	34.51	1483	27.58	59.2	14.14	86.34	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 25

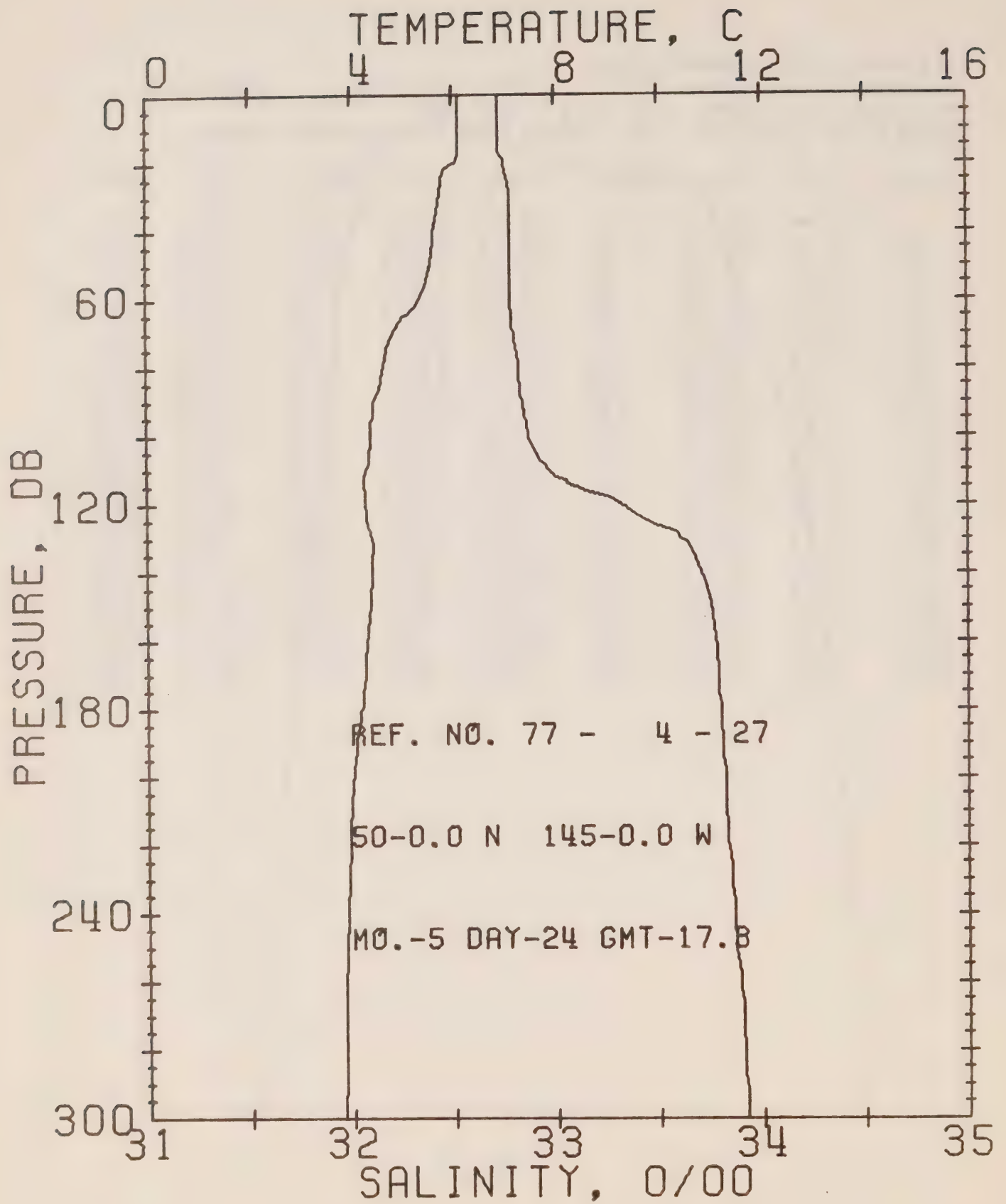
DATE 23/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.4

RESULTS OF STP CAST 203 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. EN	SOUND
0	6.04	32.73	0	25.78	222.4	0.0	0.0	1472.
10	6.02	32.73	10	25.78	222.6	0.22	0.01	1472.
20	5.96	32.74	20	25.80	220.9	0.44	0.05	1472.
30	5.80	32.77	30	25.84	217.2	0.66	0.10	1472.
50	5.57	32.78	50	25.88	214.1	1.09	0.28	1471.
75	4.68	32.82	75	26.01	201.6	1.61	0.61	1468.
100	4.17	32.96	99	26.17	186.3	2.10	1.04	1466.
125	4.36	33.50	124	26.58	147.6	2.53	1.53	1468.
150	4.38	33.76	149	26.78	128.9	2.87	2.00	1469.
175	4.23	33.79	174	26.82	125.3	3.18	2.53	1469.
200	4.08	33.81	199	26.86	122.2	3.49	3.12	1469.
225	3.97	33.83	223	26.88	119.7	3.80	3.77	1469.
250	3.89	33.86	248	26.92	116.9	4.09	4.49	1469.
300	3.80	33.92	298	26.97	111.9	4.66	6.09	1469.
400	3.73	34.07	397	27.10	100.4	5.72	9.84	1471.
500	3.60	34.15	496	27.18	94.2	6.69	14.30	1472.
600	3.43	34.23	595	27.26	87.1	7.59	19.35	1473.
800	3.10	34.33	793	27.37	77.7	9.24	31.06	1475.
1000	2.81	34.40	990	27.45	70.4	10.72	44.61	1477.
1200	2.55	34.47	1188	27.52	64.0	12.06	59.65	1480.
1500	2.28	34.53	1483	27.60	57.8	13.89	84.81	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 27

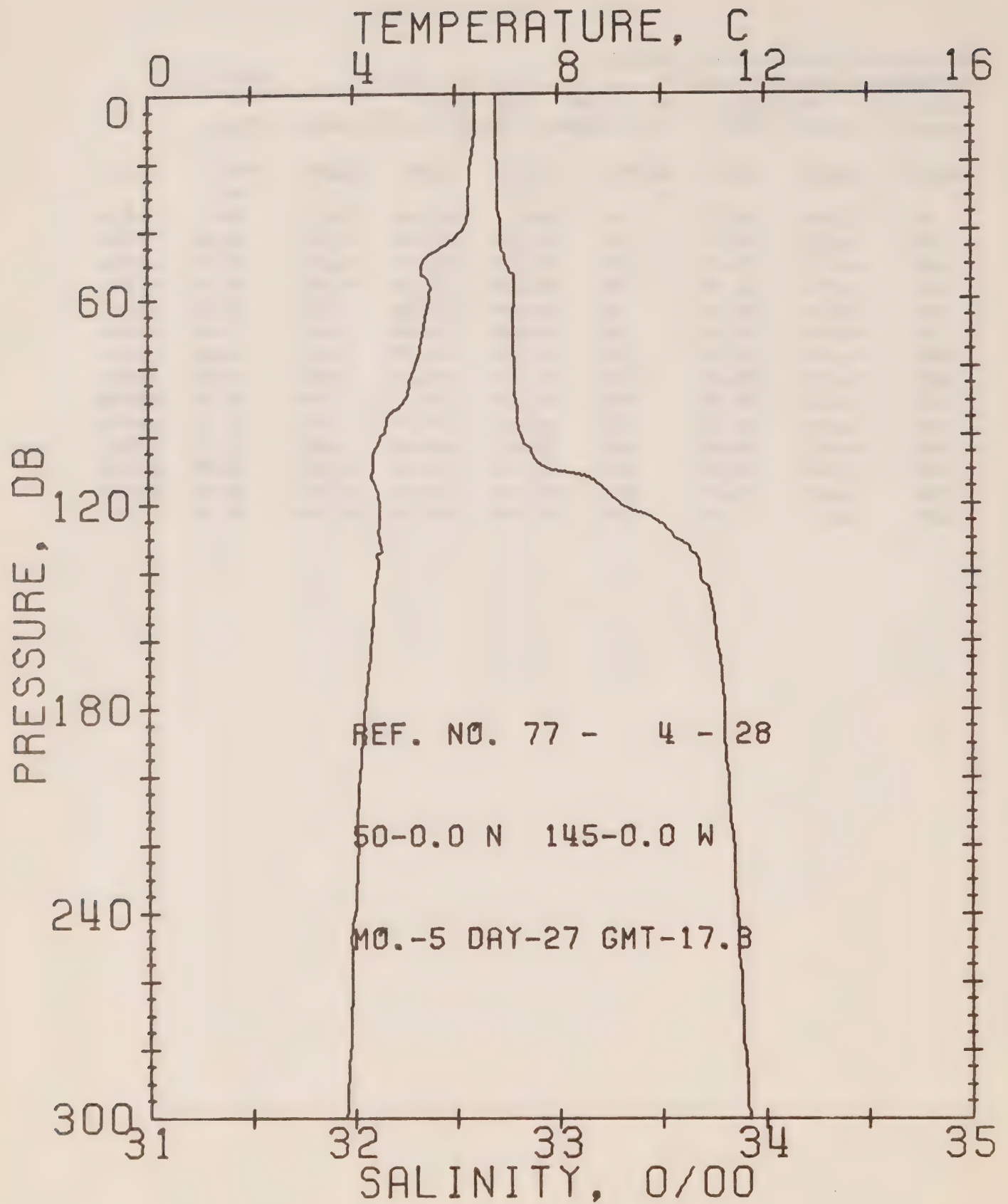
DATE 24/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 116 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.14	32.73	0	25.77	223.6	0.0	0.0	1473.
10	6.13	32.73	10	25.77	223.8	0.22	0.01	1473.
20	6.04	32.75	20	25.80	221.4	0.45	0.05	1473.
30	5.75	32.78	30	25.86	215.9	0.66	0.10	1472.
50	5.56	32.78	50	25.88	213.9	1.09	0.28	1471.
75	4.69	32.81	75	26.00	202.3	1.62	0.61	1468.
100	4.36	32.87	99	26.08	195.0	2.11	1.05	1467.
125	4.31	33.45	124	26.55	151.0	2.56	1.56	1468.
150	4.35	33.75	149	26.78	128.9	2.90	2.03	1469.
175	4.22	33.79	174	26.83	124.9	3.21	2.55	1469.
200	4.01	33.82	199	26.87	120.8	3.52	3.14	1469.
225	3.93	33.84	223	26.90	118.3	3.82	3.79	1469.
250	3.86	33.87	248	26.93	115.9	4.11	4.50	1469.
300	3.82	33.92	298	26.97	112.1	4.68	6.09	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 28

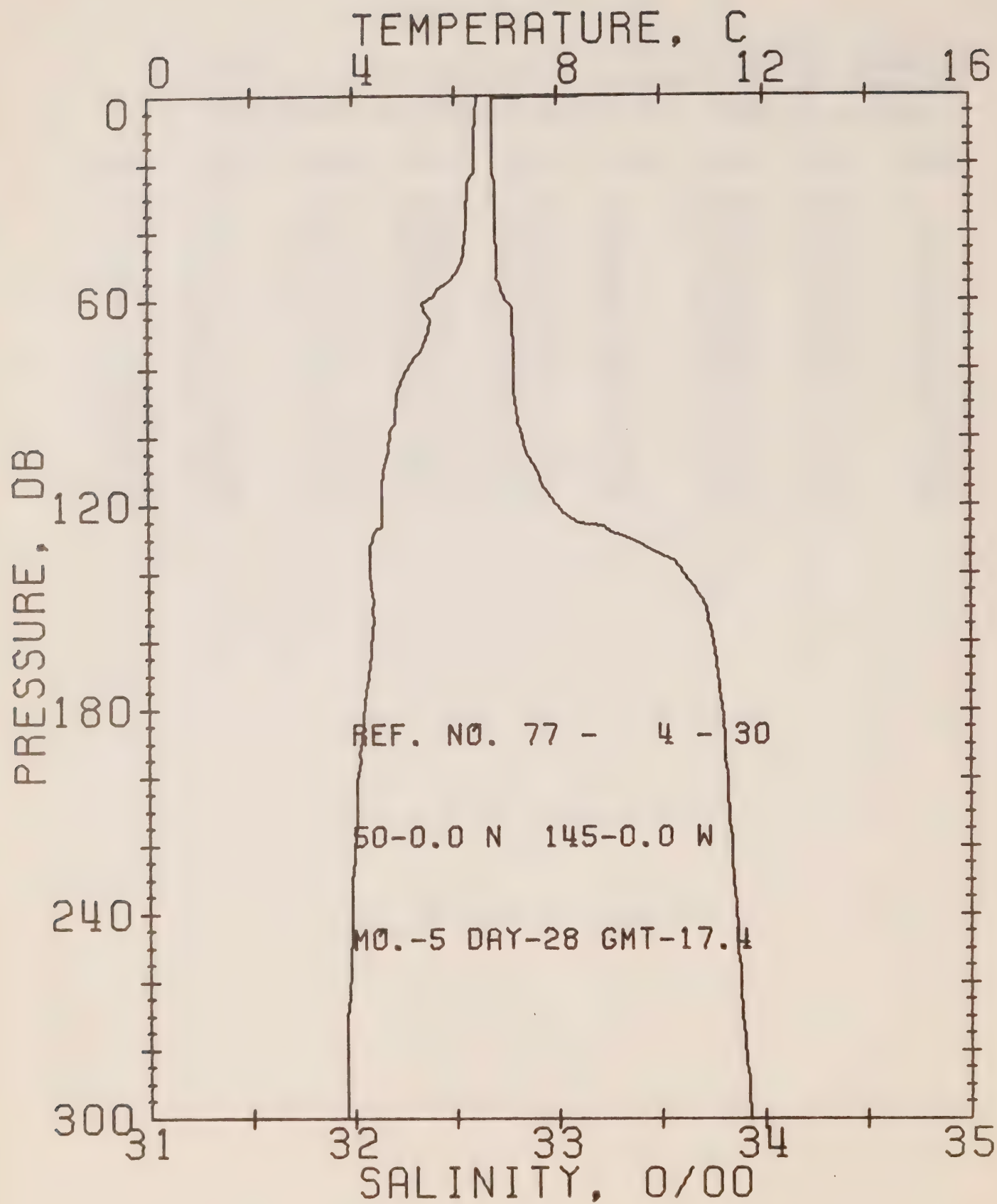
DATE 27/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 121 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.40	32.70	0	25.71	228.9	0.0	0.0	1474.
10	6.39	32.70	10	25.71	229.2	0.23	0.01	1474.
20	6.32	32.71	20	25.73	228.0	0.46	0.05	1474.
30	6.27	32.71	30	25.74	227.3	0.69	0.10	1474.
50	5.34	32.75	50	25.88	213.7	1.13	0.29	1470.
75	5.31	32.78	75	25.91	211.4	1.66	0.62	1471.
100	4.53	32.82	99	26.03	200.2	2.18	1.08	1468.
125	4.51	33.49	124	26.56	150.0	2.62	1.59	1469.
150	4.39	33.74	149	26.77	130.0	2.97	2.07	1469.
175	4.23	33.80	174	26.83	124.6	3.29	2.60	1469.
200	4.10	33.82	199	26.86	121.7	3.59	3.19	1469.
225	4.06	33.85	223	26.89	119.2	3.90	3.84	1469.
250	3.95	33.87	248	26.92	116.8	4.19	4.55	1469.
300	3.82	33.92	298	26.97	112.1	4.76	6.16	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 30

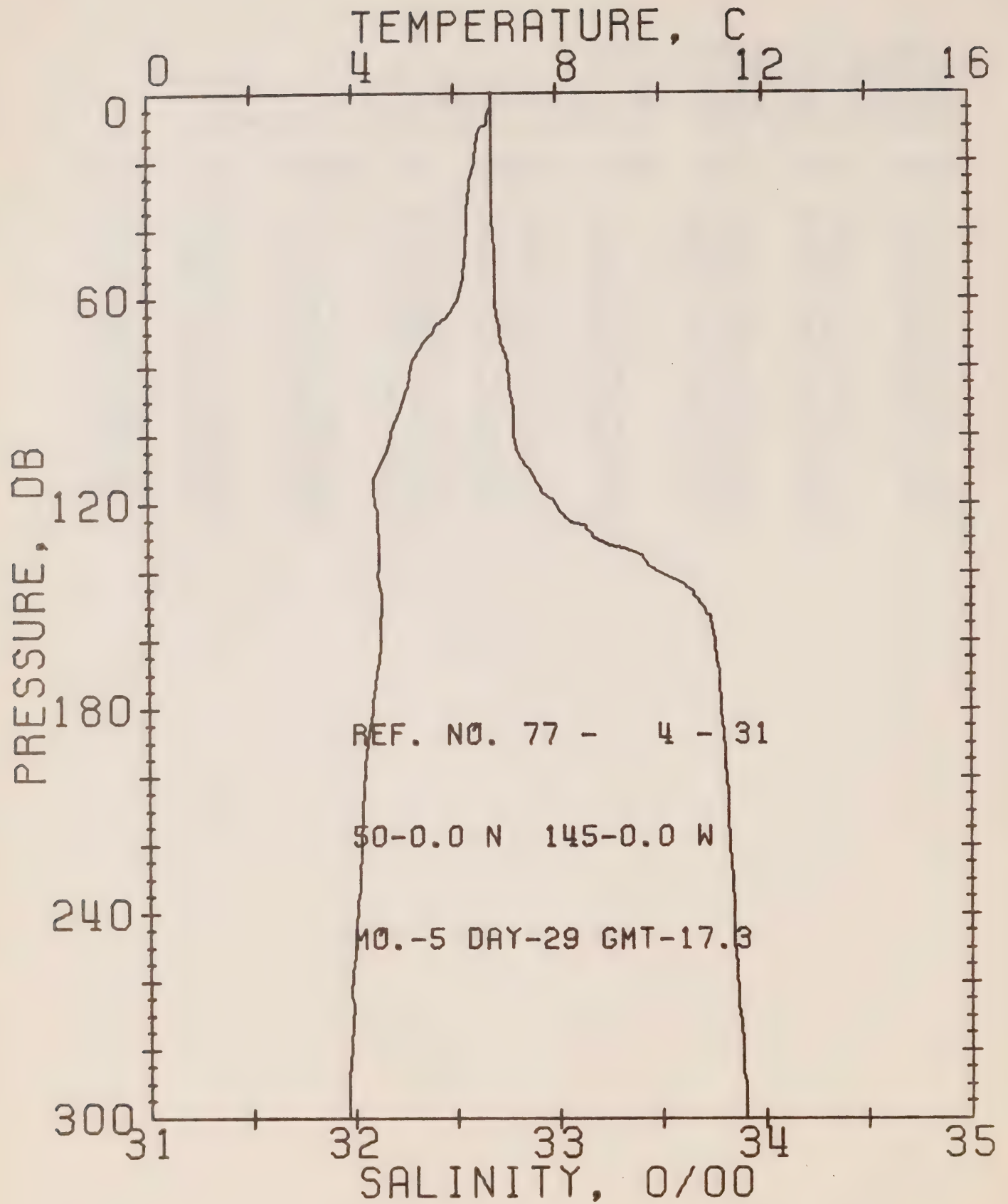
DATE 28/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.4

RESULTS OF STP CAST 106 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLLTA D	PDT. FN	SOUND
0	6.46	33.26	0	26.15	187.8	0.0	0.0	1475.
10	6.41	32.69	10	25.70	230.2	0.23	0.01	1474.
20	6.40	32.69	20	25.70	230.1	0.46	0.05	1474.
30	6.25	32.70	30	25.73	227.8	0.69	0.11	1474.
50	6.10	32.71	50	25.76	225.5	1.14	0.29	1473.
75	5.30	32.79	75	25.92	210.5	1.68	0.63	1471.
100	4.71	32.83	99	26.01	201.7	2.20	1.09	1469.
125	4.57	33.10	124	26.24	179.9	2.68	1.65	1469.
150	4.38	33.72	149	26.75	131.6	3.05	2.16	1469.
175	4.24	33.78	174	26.82	125.8	3.37	2.69	1469.
200	4.06	33.82	199	26.87	121.3	3.68	3.28	1469.
225	3.98	33.84	223	26.89	119.0	3.98	3.93	1469.
250	3.93	33.87	248	26.92	116.6	4.27	4.64	1469.
300	3.83	33.93	298	26.98	111.4	4.84	6.23	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 31

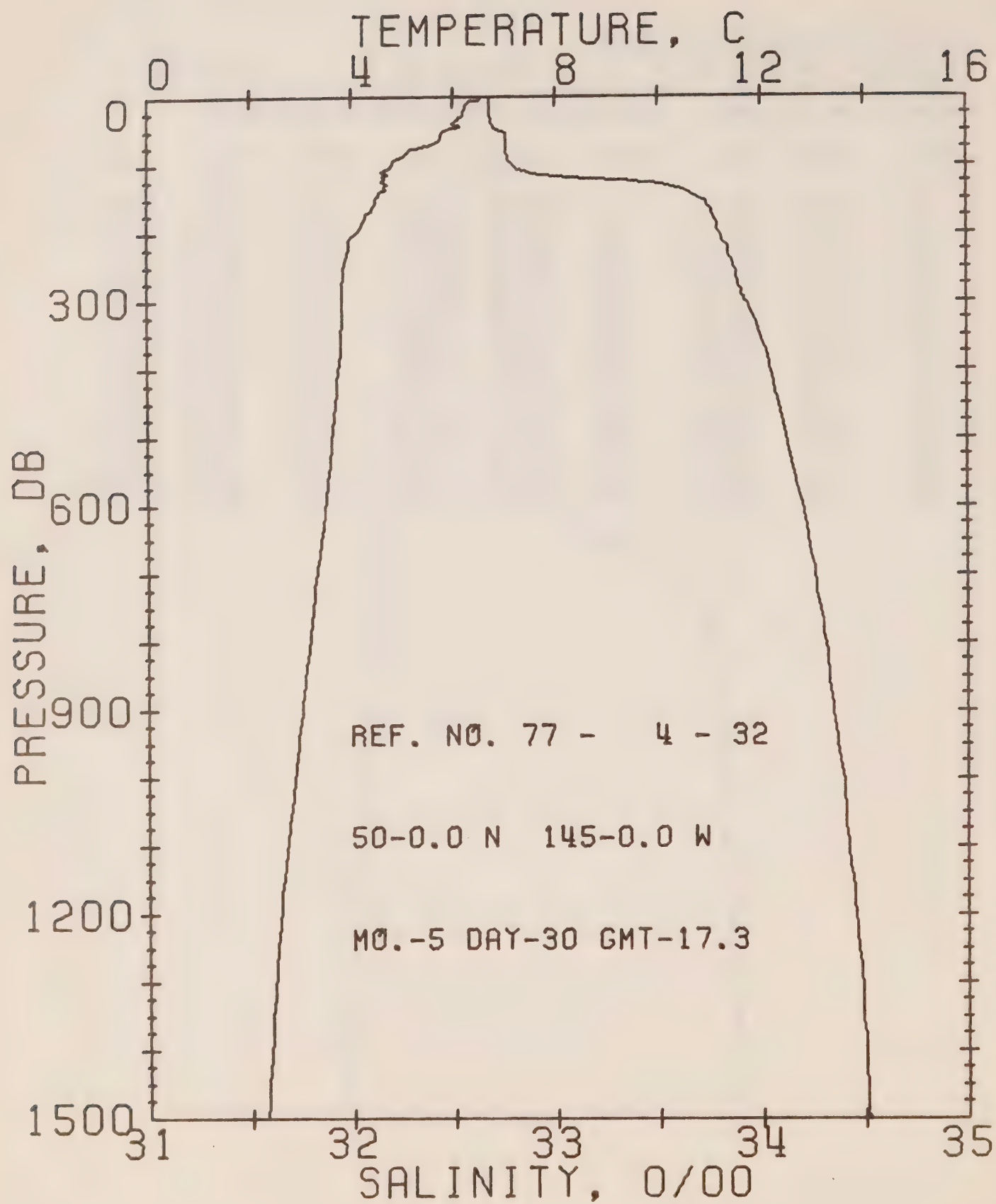
DATE 29/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 95 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.76	32.69	0	25.66	234.1	0.0	0.0	1475.
10	6.59	32.69	10	25.68	232.4	0.23	0.01	1475.
20	6.44	32.69	20	25.70	230.7	0.46	0.05	1474.
30	6.30	32.69	30	25.72	229.1	0.69	0.11	1474.
50	6.21	32.70	50	25.74	227.5	1.15	0.29	1474.
75	5.31	32.74	75	25.88	214.4	1.71	0.65	1471.
100	4.75	32.79	99	25.98	204.8	2.23	1.11	1469.
125	4.49	33.06	124	26.22	182.0	2.72	1.67	1468.
150	4.56	33.71	149	26.73	134.2	3.10	2.21	1470.
175	4.40	33.78	174	26.80	127.3	3.43	2.75	1470.
200	4.20	33.81	199	26.85	123.1	3.74	3.34	1469.
225	4.11	33.83	223	26.87	120.9	4.05	4.00	1469.
250	4.01	33.85	248	26.90	118.8	4.35	4.73	1469.
300	3.86	33.90	298	26.95	114.1	4.93	6.35	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 32

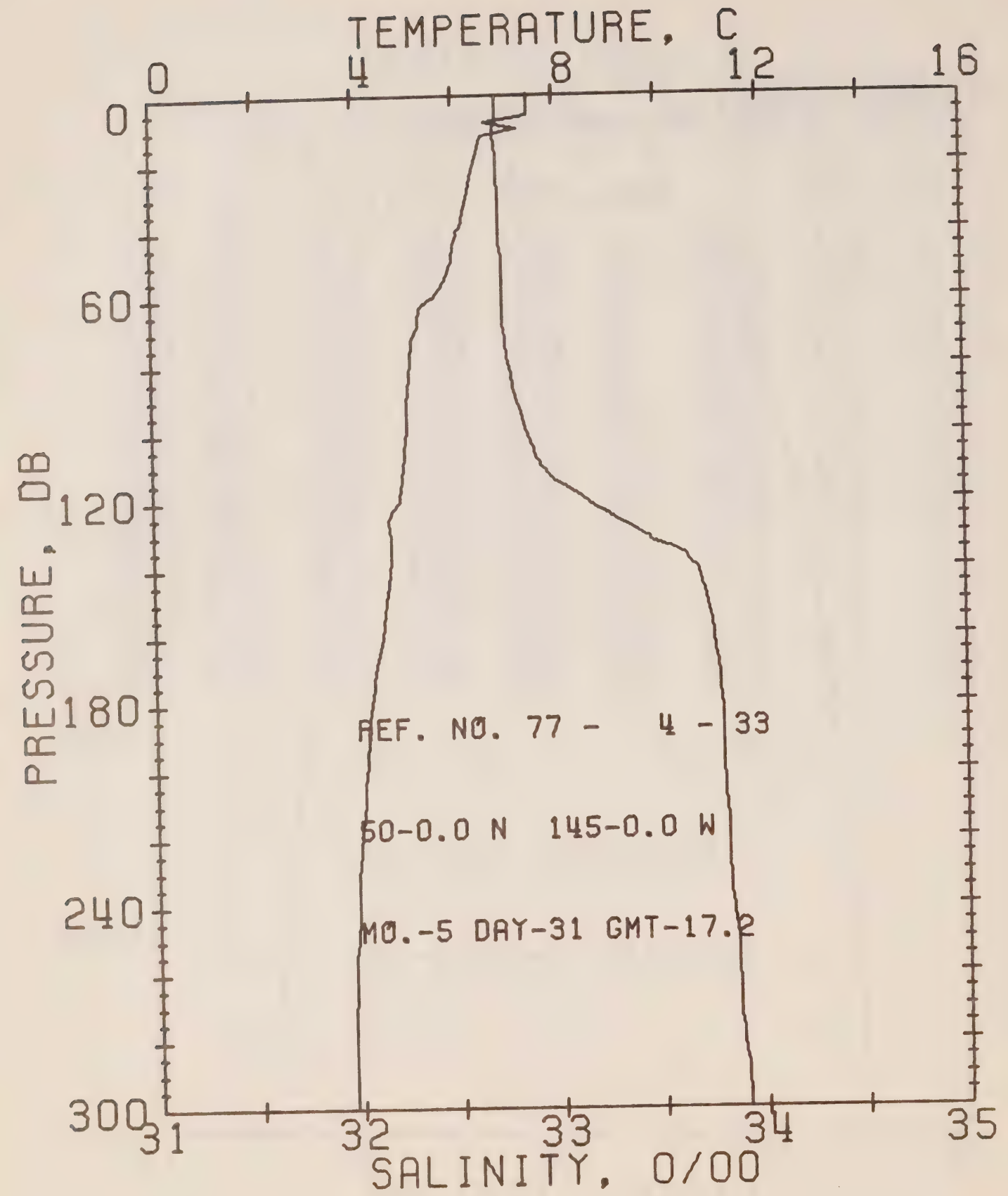
DATE 30/ 5/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 181 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	6.01	32.69	0	25.75	225.0	0.0	0.0	1472.
10	6.30	32.68	10	25.71	229.6	0.23	0.01	1473.
20	6.22	32.68	20	25.72	228.8	0.46	0.05	1473.
30	6.15	32.68	30	25.73	228.1	0.69	0.11	1473.
50	5.84	32.73	50	25.81	220.9	1.14	0.29	1472.
75	5.27	32.76	75	25.90	212.4	1.68	0.63	1470.
100	4.79	32.79	99	25.98	205.0	2.21	1.10	1469.
125	4.66	33.43	124	26.49	156.1	2.68	1.64	1470.
150	4.48	33.71	149	26.74	133.3	3.04	2.14	1470.
175	4.28	33.77	174	26.80	127.3	3.36	2.68	1469.
200	4.08	33.80	199	26.85	123.1	3.67	3.28	1469.
225	3.93	33.84	223	26.90	118.6	3.98	3.93	1469.
250	3.84	33.87	248	26.93	115.6	4.27	4.64	1469.
300	3.81	33.92	298	26.97	112.0	4.84	6.23	1469.
400	3.74	34.04	397	27.08	102.9	5.90	10.03	1471.
500	3.62	34.12	496	27.15	96.3	6.90	14.59	1472.
600	3.47	34.20	595	27.23	89.6	7.83	19.81	1473.
800	3.16	34.31	793	27.34	79.8	9.52	31.83	1475.
1000	2.86	34.40	990	27.44	71.2	11.03	45.68	1478.
1200	2.57	34.45	1188	27.51	65.0	12.40	60.97	1480.
1500	2.29	34.52	1483	27.59	58.7	14.25	86.37	1484.



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REFERENCE NO. 77- 4- 33

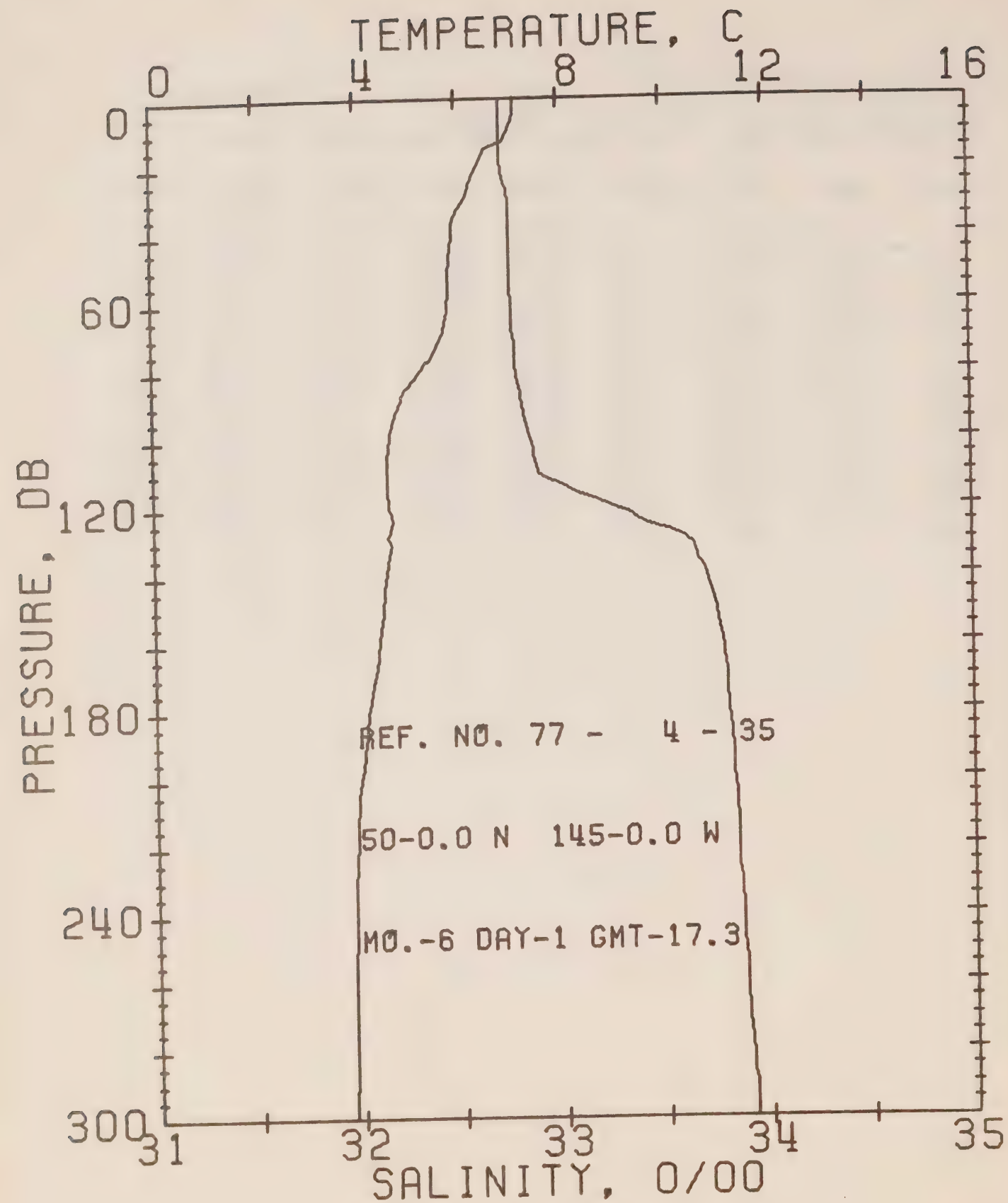
DATE 31/ 5/77

STATION p

POSITION 50- 0.0N, 145- 0.0W GMT 17.2

RESULTS OF STP CAST 98 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.52	32.72	0	25.58	241.7	0.0	0.0	1478.
10	7.30	32.71	10	25.60	239.9	0.24	0.01	1477.
20	6.44	32.72	20	25.72	228.4	0.47	0.05	1474.
30	6.30	32.73	30	25.75	226.1	0.70	0.11	1474.
50	5.94	32.74	50	25.80	221.3	1.15	0.29	1473.
75	5.14	32.75	75	25.91	211.5	1.69	0.63	1470.
100	5.02	32.86	99	26.00	202.7	2.20	1.09	1470.
125	4.63	33.28	124	26.38	167.0	2.68	1.64	1469.
150	4.59	33.73	149	26.74	133.2	3.04	2.14	1470.
175	4.31	33.79	174	26.82	125.9	3.36	2.68	1469.
200	4.14	33.80	199	26.85	123.3	3.68	3.27	1469.
225	3.99	33.82	223	26.87	120.7	3.98	3.93	1469.
250	3.92	33.86	248	26.91	117.2	4.28	4.65	1469.
300	3.84	33.91	298	26.96	113.1	4.85	6.26	1470.



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REFERENCE NO. 77- 4- 35

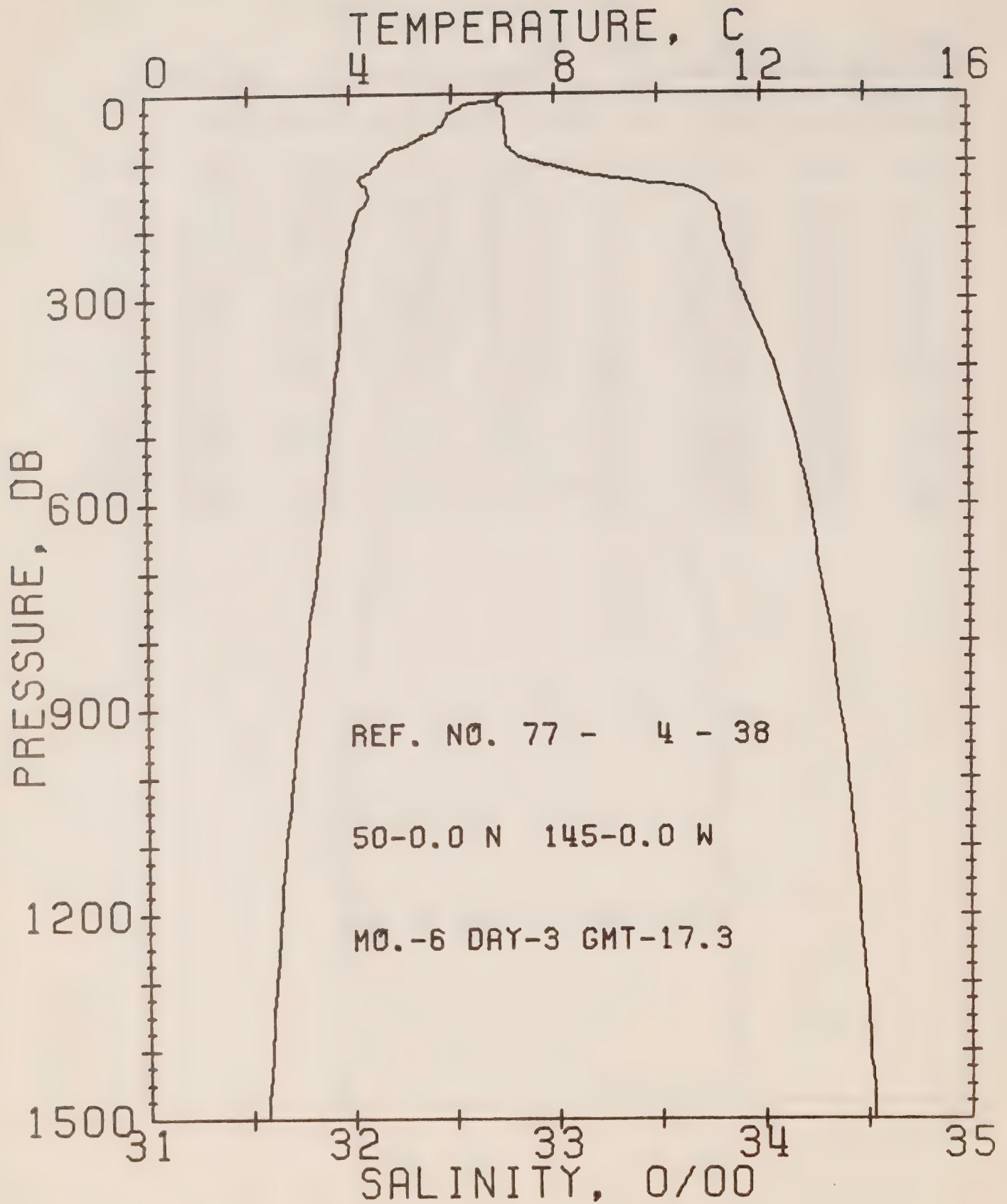
DATE 1/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 101 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.16	32.72	0	25.63	237.0	0.0	0.0	1477.
10	7.04	32.72	10	25.64	235.8	0.24	0.01	1476.
20	6.41	32.72	20	25.73	227.7	0.47	0.05	1474.
30	6.17	32.76	30	25.79	222.3	0.69	0.10	1473.
50	5.86	32.76	50	25.83	218.8	1.13	0.28	1472.
75	5.50	32.78	75	25.88	213.5	1.68	0.63	1471.
100	4.63	32.85	99	26.04	198.9	2.19	1.09	1468.
125	4.66	33.43	124	26.49	156.1	2.65	1.61	1470.
150	4.48	33.75	149	26.77	130.4	3.00	2.09	1470.
175	4.23	33.80	174	26.84	124.1	3.31	2.62	1469.
200	4.01	33.83	199	26.88	119.7	3.62	3.20	1469.
225	3.89	33.85	223	26.91	117.5	3.91	3.84	1469.
250	3.86	33.87	248	26.93	115.5	4.20	4.54	1469.
300	3.82	33.92	298	26.97	112.1	4.77	6.14	1470.



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REFERENCE NO. 77- 4- 38

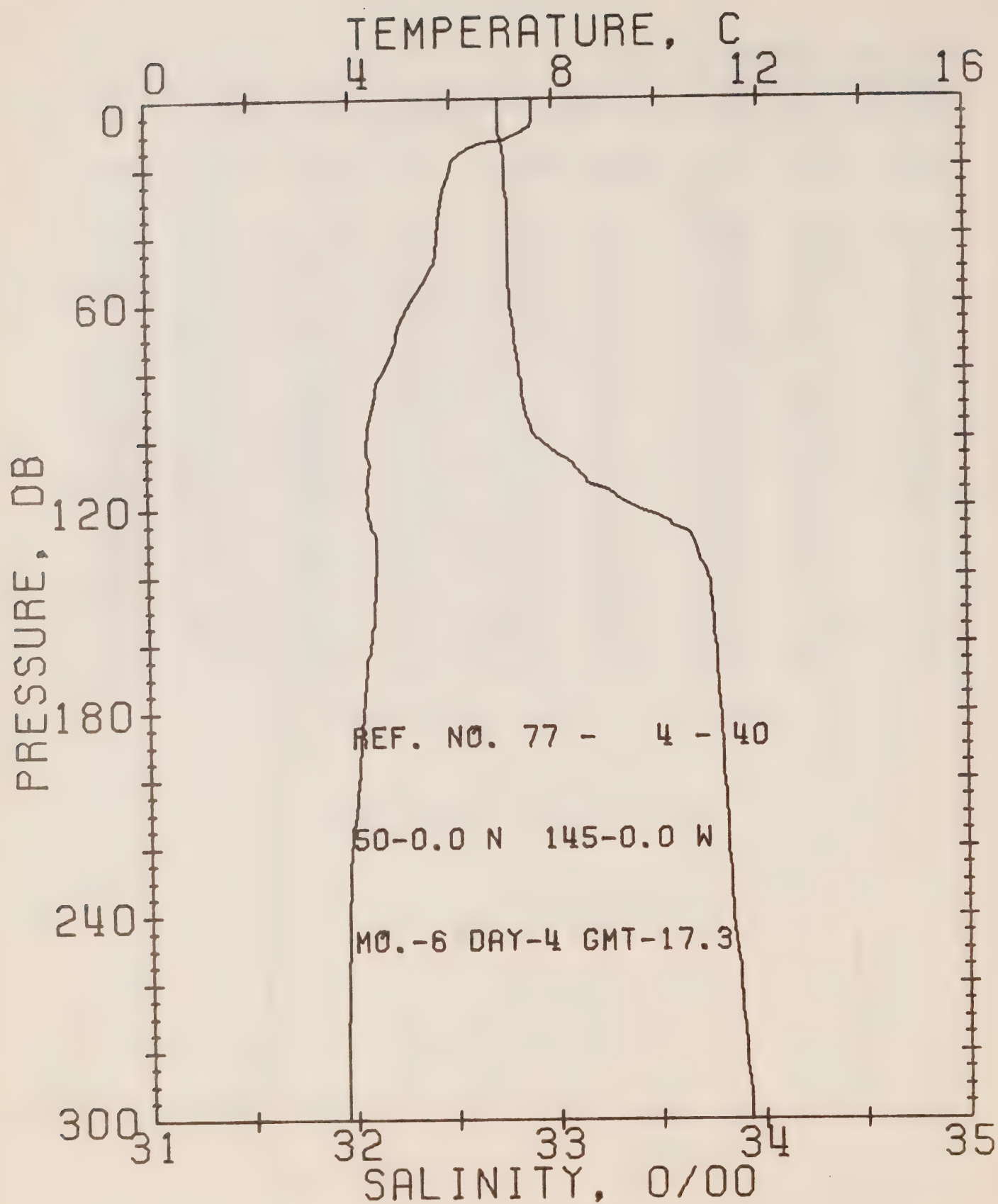
DATE 3/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 177 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.00	32.73	0	25.66	234.2	0.0	0.0	1476.
10	6.90	32.72	10	25.66	234.0	0.23	0.01	1476.
20	6.17	32.74	20	25.77	223.5	0.46	0.05	1473.
30	5.92	32.75	30	25.81	220.1	0.68	0.10	1472.
50	5.76	32.76	50	25.84	217.7	1.12	0.28	1472.
75	5.14	32.77	75	25.92	210.3	1.66	0.62	1470.
100	4.59	32.92	99	26.10	193.7	2.16	1.07	1468.
125	4.18	33.32	124	26.46	159.0	2.61	1.59	1467.
150	4.36	33.73	149	26.77	130.4	2.96	2.08	1469.
175	4.14	33.79	174	26.84	123.8	3.28	2.60	1469.
200	4.05	33.81	199	26.86	121.9	3.59	3.19	1469.
225	3.96	33.83	223	26.89	119.6	3.89	3.84	1469.
250	3.93	33.86	248	26.91	117.3	4.19	4.56	1469.
300	3.83	33.93	298	26.98	111.4	4.76	6.16	1470.
400	3.73	34.06	397	27.09	101.3	5.82	9.96	1471.
500	3.56	34.16	496	27.19	93.1	6.80	14.41	1472.
600	3.45	34.23	595	27.25	87.4	7.70	19.46	1473.
800	3.12	34.34	793	27.37	77.4	9.35	31.23	1475.
1000	2.81	34.41	990	27.46	69.9	10.83	44.72	1477.
1200	2.56	34.46	1188	27.52	64.6	12.17	59.71	1480.
1500	2.28	34.53	1483	27.60	57.8	13.99	84.74	1484.



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REFERENCE NO. 77- 4- 40

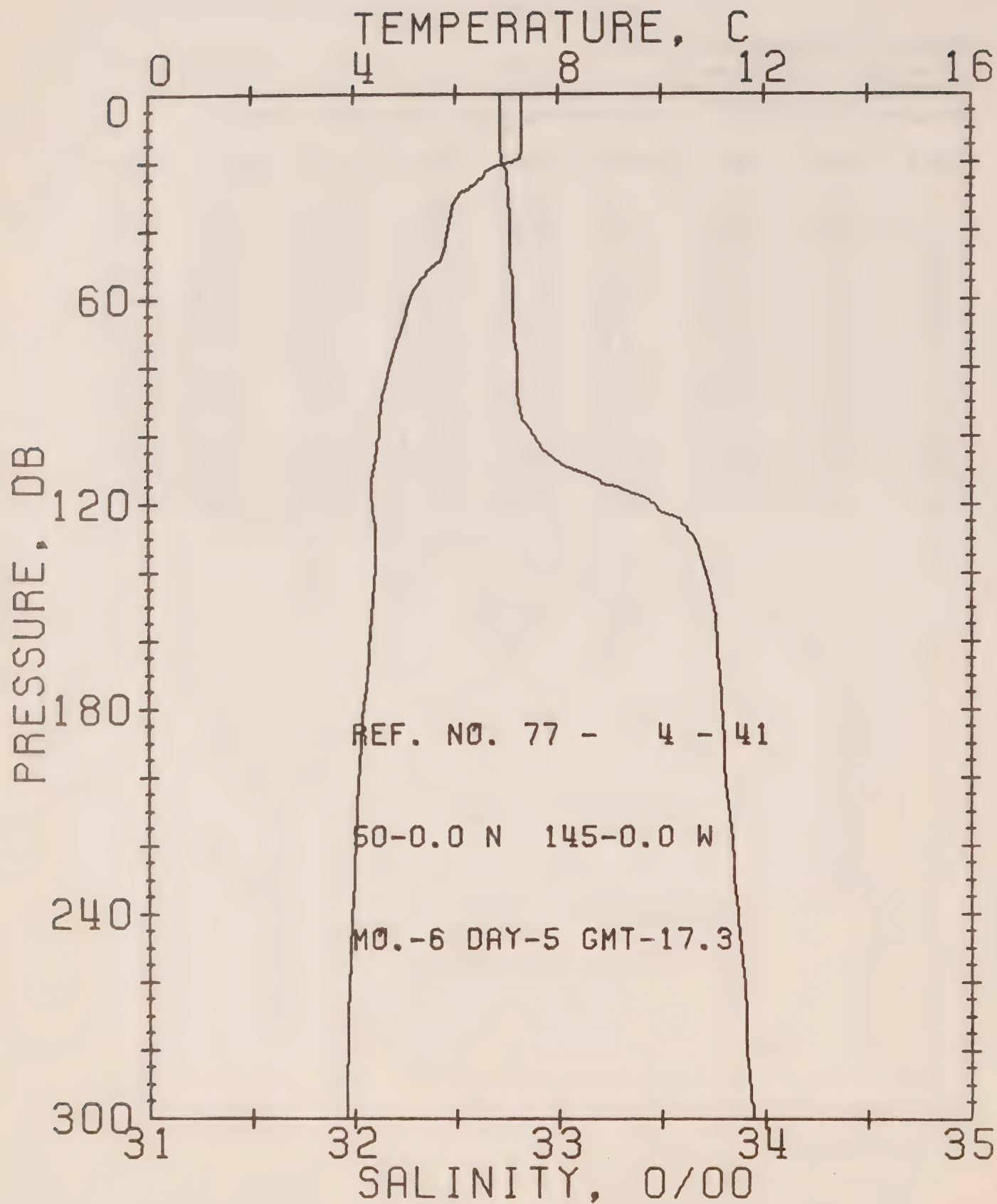
DATE 4/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 101 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.62	32.74	0	25.58	241.5	0.0	0.0	1479.
10	7.38	32.74	10	25.61	238.7	0.24	0.01	1478.
20	5.99	32.77	20	25.82	219.3	0.47	0.05	1472.
30	5.80	32.78	30	25.85	216.4	0.69	0.10	1472.
50	5.58	32.78	50	25.88	214.2	1.12	0.23	1471.
75	4.80	32.82	75	25.99	203.0	1.64	0.61	1468.
100	4.30	32.92	99	26.13	190.2	2.13	1.05	1467.
125	4.37	33.57	124	26.64	142.5	2.55	1.53	1469.
150	4.44	33.76	149	26.78	129.0	2.89	2.00	1469.
175	4.21	33.79	174	26.83	124.7	3.20	2.52	1469.
200	4.09	33.81	199	26.86	122.0	3.51	3.11	1469.
225	3.90	33.84	223	26.90	118.5	3.81	3.76	1469.
250	3.86	33.87	248	26.93	116.1	4.10	4.47	1469.
300	3.82	33.93	298	26.98	111.3	4.67	6.06	1470.



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REFERENCE NO. 77- 4- 41

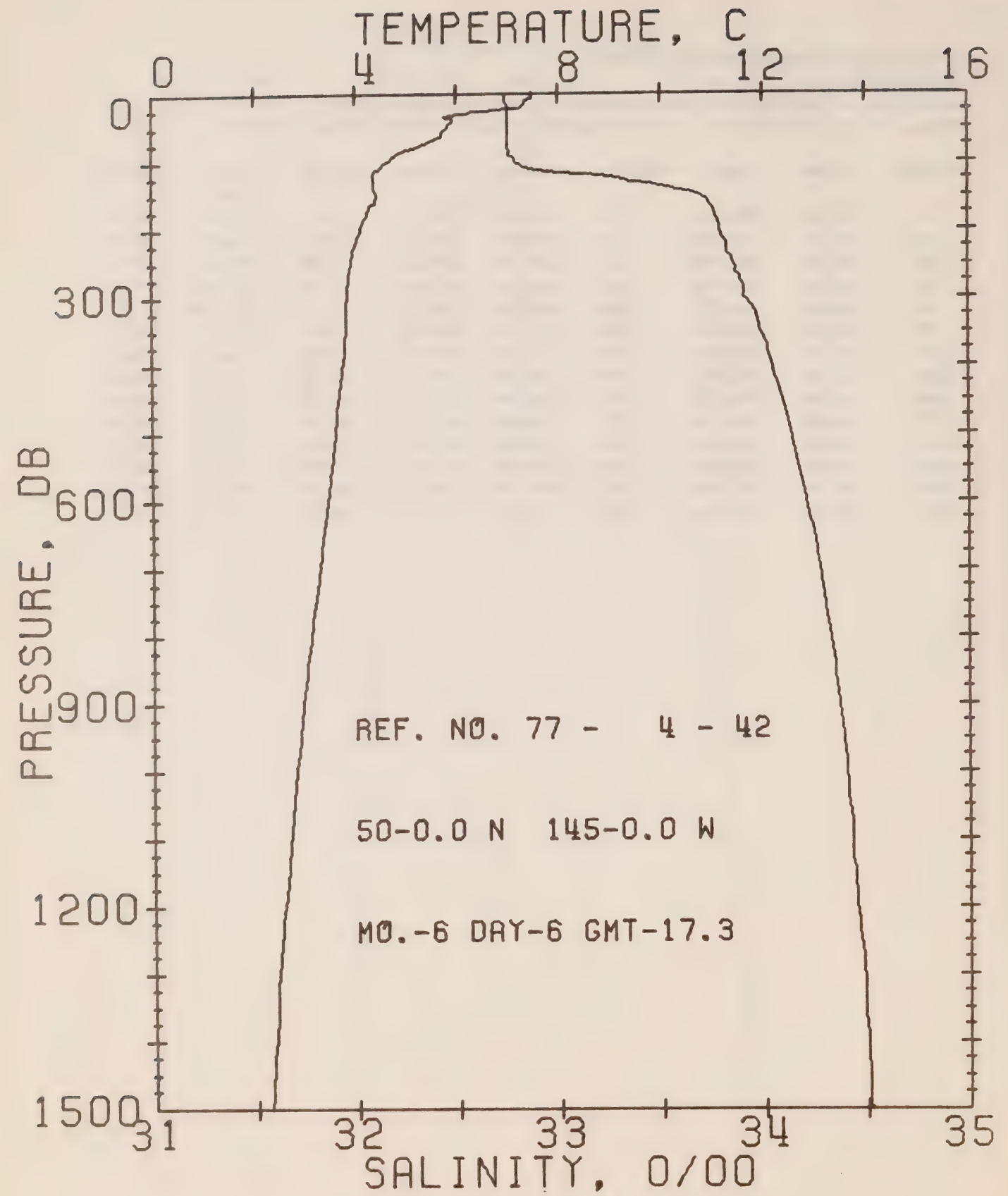
DATE 5/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 94 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.32	32.72	0	25.61	239.1	0.0	0.0	1477.
10	7.31	32.72	10	25.61	239.3	0.24	0.01	1477.
20	7.10	32.73	20	25.64	236.0	0.48	0.05	1477.
30	6.05	32.76	30	25.80	220.9	0.70	0.11	1473.
50	5.61	32.77	50	25.86	215.3	1.14	0.28	1471.
75	4.79	32.80	75	25.98	204.5	1.66	0.62	1468.
100	4.50	32.88	99	26.08	195.4	2.17	1.06	1468.
125	4.41	33.60	124	26.66	140.7	2.59	1.55	1469.
150	4.36	33.75	149	26.78	129.1	2.93	2.02	1469.
175	4.22	33.79	174	26.82	125.2	3.24	2.54	1469.
200	4.08	33.81	199	26.85	122.5	3.55	3.14	1469.
225	4.00	33.85	223	26.90	118.7	3.86	3.79	1469.
250	3.92	33.88	248	26.93	115.8	4.15	4.50	1469.
300	3.83	33.94	298	26.99	110.7	4.71	6.08	1470.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 42

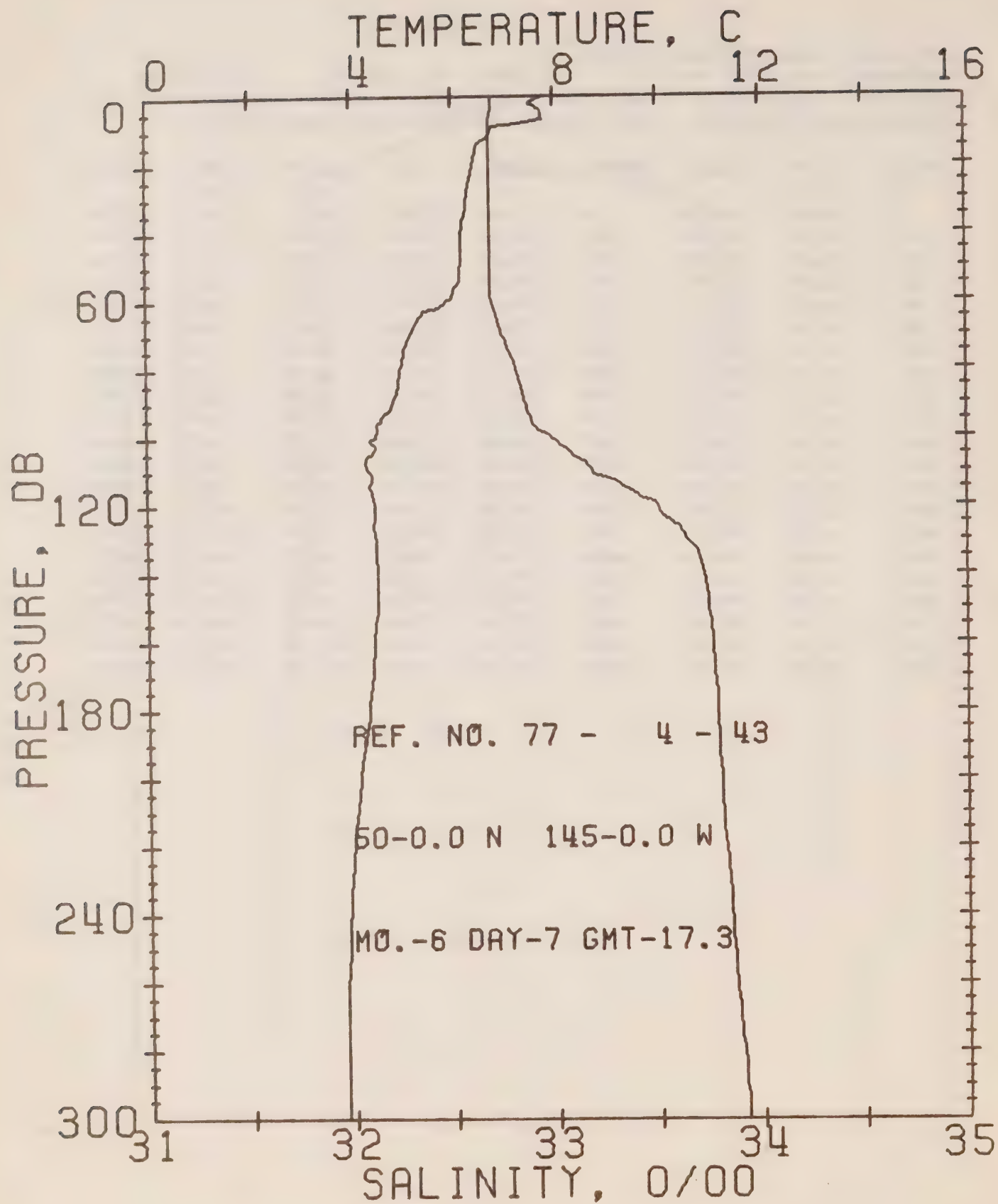
DATE 6/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 175 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.48	32.74	0	25.60	239.7	0.0	0.0	1478.
10	7.42	32.74	10	25.61	239.3	0.24	0.01	1478.
20	7.28	32.75	20	25.63	236.8	0.48	0.05	1478.
30	6.19	32.75	30	25.78	223.3	0.71	0.11	1473.
50	5.81	32.75	50	25.82	219.0	1.15	0.29	1472.
75	5.34	32.75	75	25.88	213.9	1.69	0.63	1471.
100	4.65	32.79	99	25.99	203.8	2.21	1.10	1468.
125	4.35	33.31	124	26.43	161.8	2.68	1.63	1468.
150	4.43	33.70	149	26.73	133.6	3.05	2.15	1469.
175	4.25	33.76	174	26.80	127.5	3.38	2.69	1469.
200	4.10	33.79	199	26.84	123.9	3.69	3.29	1469.
225	3.97	33.82	223	26.88	120.6	3.99	3.95	1469.
250	3.91	33.86	248	26.91	117.5	4.29	4.67	1469.
300	3.83	33.91	298	26.96	113.0	4.87	6.27	1470.
400	3.75	34.04	397	27.08	102.9	5.94	10.09	1471.
500	3.60	34.14	496	27.16	95.3	6.93	14.63	1472.
600	3.44	34.21	595	27.24	88.8	7.85	19.79	1473.
800	3.09	34.33	793	27.37	77.7	9.51	31.60	1475.
1000	2.80	34.40	990	27.45	70.4	10.99	45.09	1477.
1200	2.55	34.45	1188	27.51	65.2	12.34	60.25	1480.
1500	2.27	34.52	1483	27.59	58.4	14.18	85.54	1483.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 43

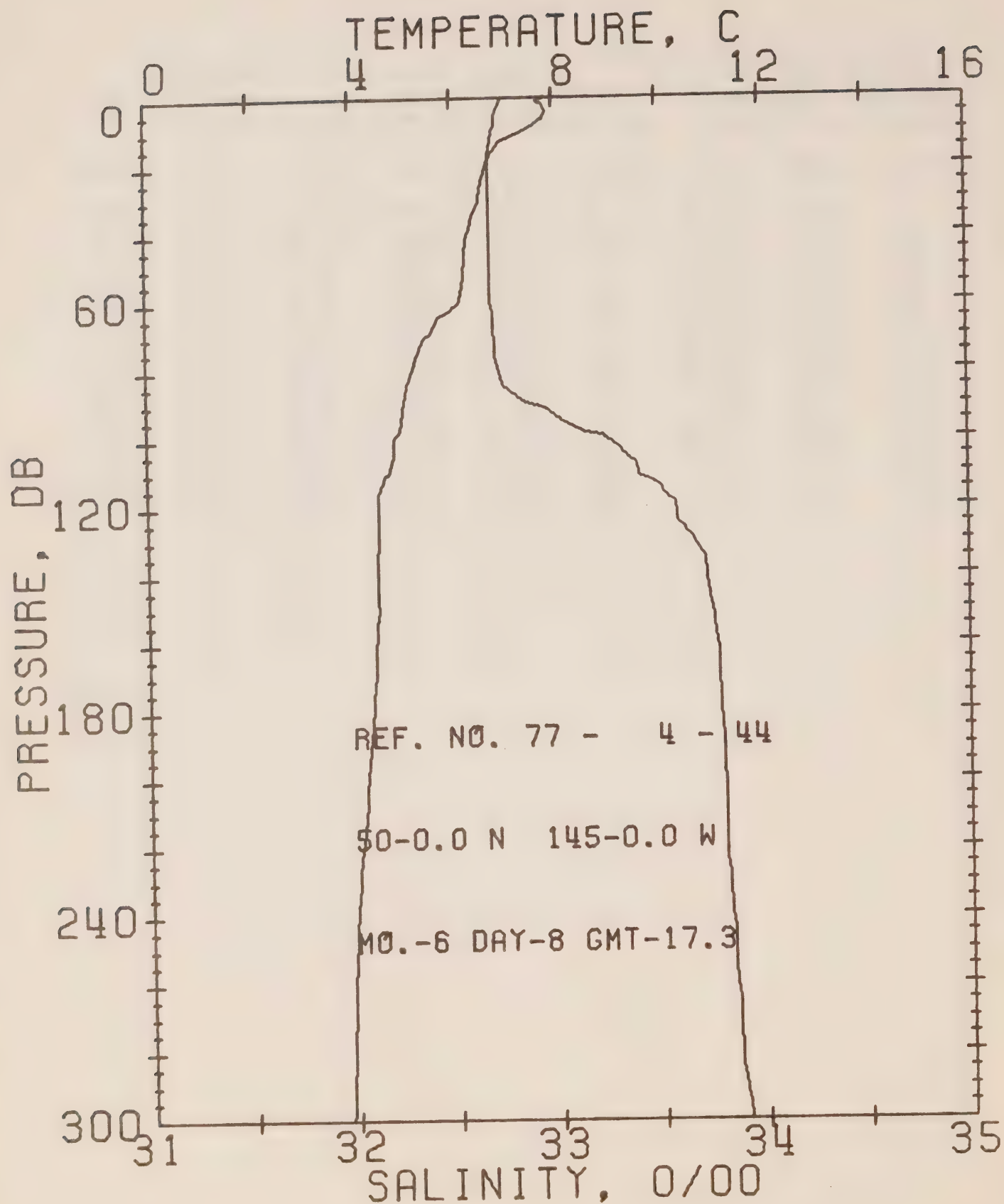
DATE 7/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 101 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.82	32.70	0	25.52	247.3	0.0	0.0	1479.
10	6.78	32.69	10	25.66	234.7	0.24	0.01	1475.
20	6.43	32.69	20	25.70	230.6	0.48	0.05	1474.
30	6.30	32.69	30	25.72	229.1	0.71	0.11	1474.
50	6.17	32.69	50	25.73	227.8	1.16	0.29	1474.
75	5.04	32.78	75	25.94	208.6	1.71	0.64	1469.
100	4.48	32.98	99	26.16	187.8	2.21	1.09	1468.
125	4.45	33.57	124	26.63	143.1	2.63	1.56	1469.
150	4.51	33.74	149	26.76	131.5	2.96	2.03	1470.
175	4.35	33.78	174	26.80	127.0	3.28	2.56	1470.
200	4.13	33.80	199	26.84	123.5	3.60	3.16	1469.
225	3.97	33.83	223	26.88	119.7	3.90	3.82	1469.
250	3.89	33.86	248	26.91	117.2	4.20	4.54	1469.
300	3.84	33.92	298	26.97	112.3	4.77	6.14	1470.



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REFERENCE NO. 77- 4- 44

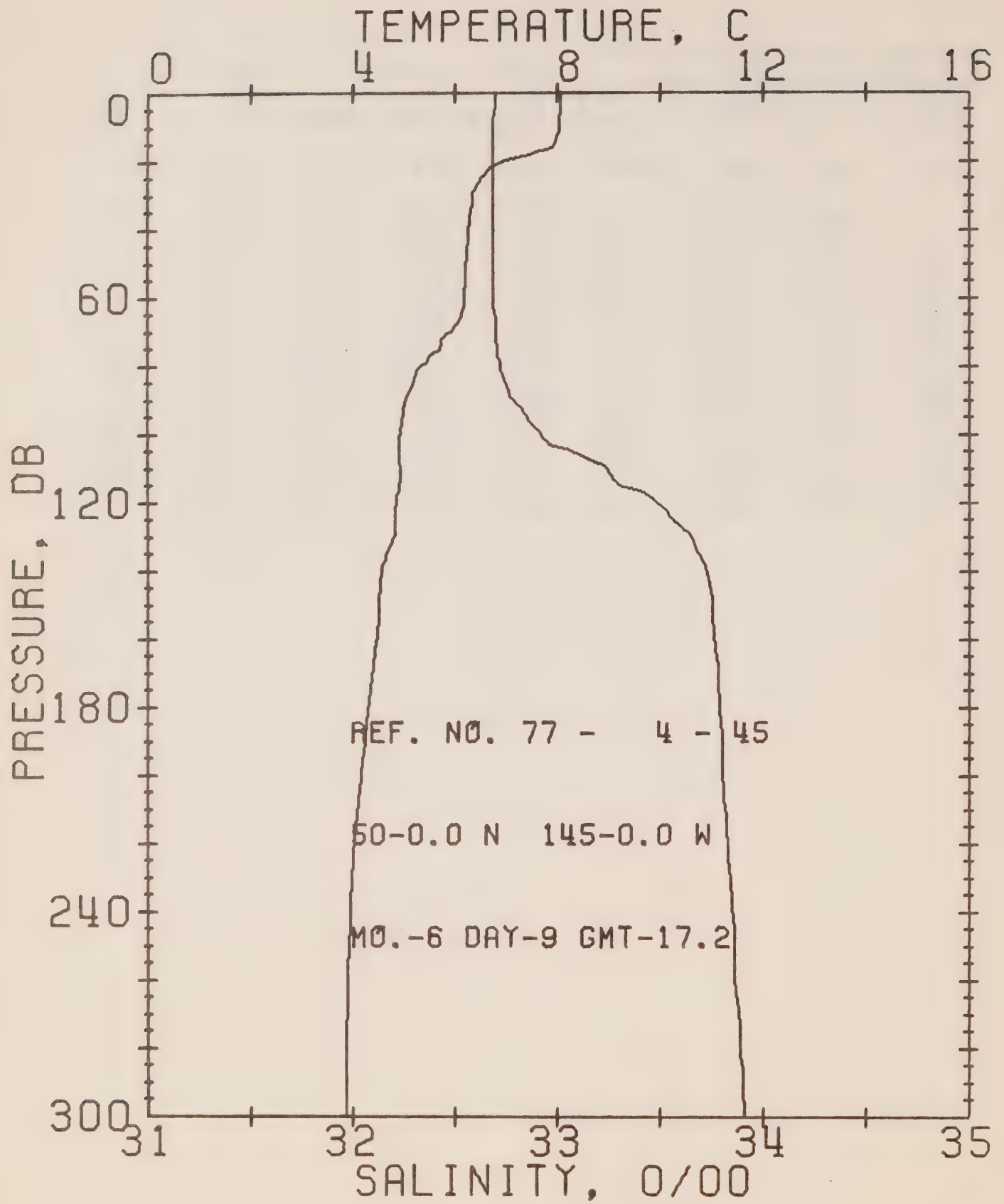
DATE 8/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 101 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.87	32.75	0	25.55	244.2	0.0	0.0	1479.
10	7.42	32.71	10	25.58	241.5	0.24	0.01	1478.
20	6.69	32.69	20	25.67	233.8	0.48	0.05	1475.
30	6.55	32.69	30	25.69	232.2	0.71	0.11	1475.
50	6.25	32.69	50	25.72	228.7	1.17	0.30	1474.
75	5.31	32.71	75	25.85	216.6	1.73	0.65	1470.
100	4.84	33.25	99	26.33	171.2	2.24	1.10	1470.
125	4.50	33.60	124	26.65	141.4	2.62	1.54	1469.
150	4.50	33.75	149	26.77	130.6	2.95	2.00	1470.
175	4.39	33.79	174	26.81	126.7	3.28	2.53	1470.
200	4.24	33.81	199	26.84	124.1	3.59	3.13	1470.
225	4.08	33.81	223	26.86	122.0	3.90	3.80	1469.
250	3.96	33.84	248	26.89	119.2	4.20	4.53	1469.
300	3.85	33.91	298	26.96	113.2	4.78	6.16	1470.



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REFERENCE NO. 77- 4- 45

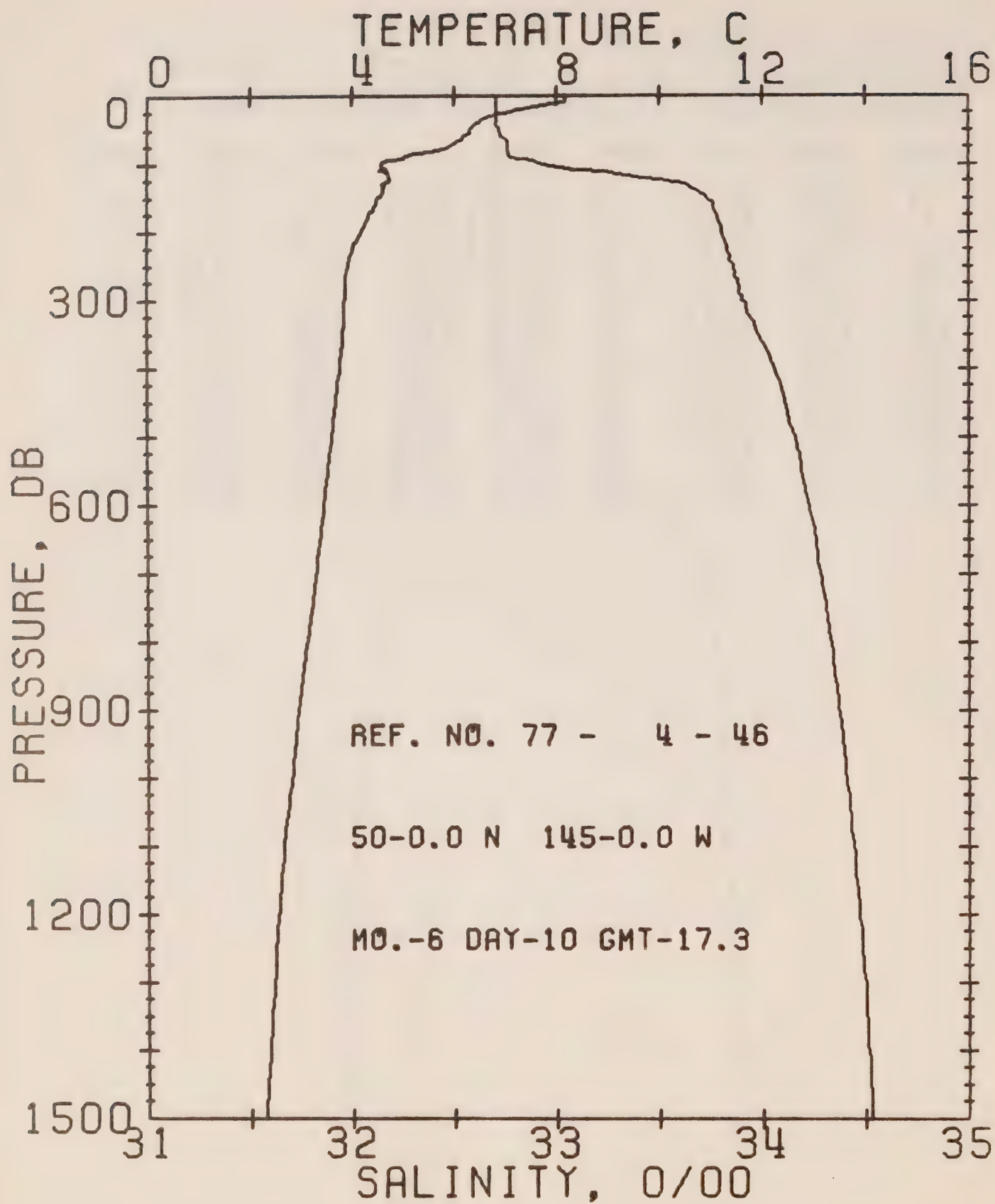
DATE 9/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.2

RESULTS OF STP CAST 112 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.07	32.70	0	25.48	250.7	0.0	0.0	1480.
10	8.06	32.69	10	25.48	251.7	0.25	0.01	1480.
20	6.91	32.69	20	25.64	236.5	0.50	0.05	1476.
30	6.35	32.69	30	25.71	229.7	0.73	0.11	1474.
50	6.23	32.69	50	25.73	228.5	1.19	0.30	1474.
75	5.70	32.71	75	25.81	221.1	1.76	0.66	1472.
100	4.93	32.92	99	26.06	197.0	2.28	1.12	1470.
125	4.83	33.57	124	26.58	147.6	2.70	1.61	1470.
150	4.51	33.75	149	26.76	130.7	3.05	2.08	1470.
175	4.33	33.78	174	26.81	126.6	3.37	2.62	1469.
200	4.16	33.80	199	26.84	123.8	3.68	3.21	1469.
225	4.00	33.83	223	26.88	120.0	3.98	3.87	1469.
250	3.91	33.86	248	26.91	117.1	4.28	4.59	1469.
300	3.86	33.91	298	26.96	113.2	4.86	6.20	1470.



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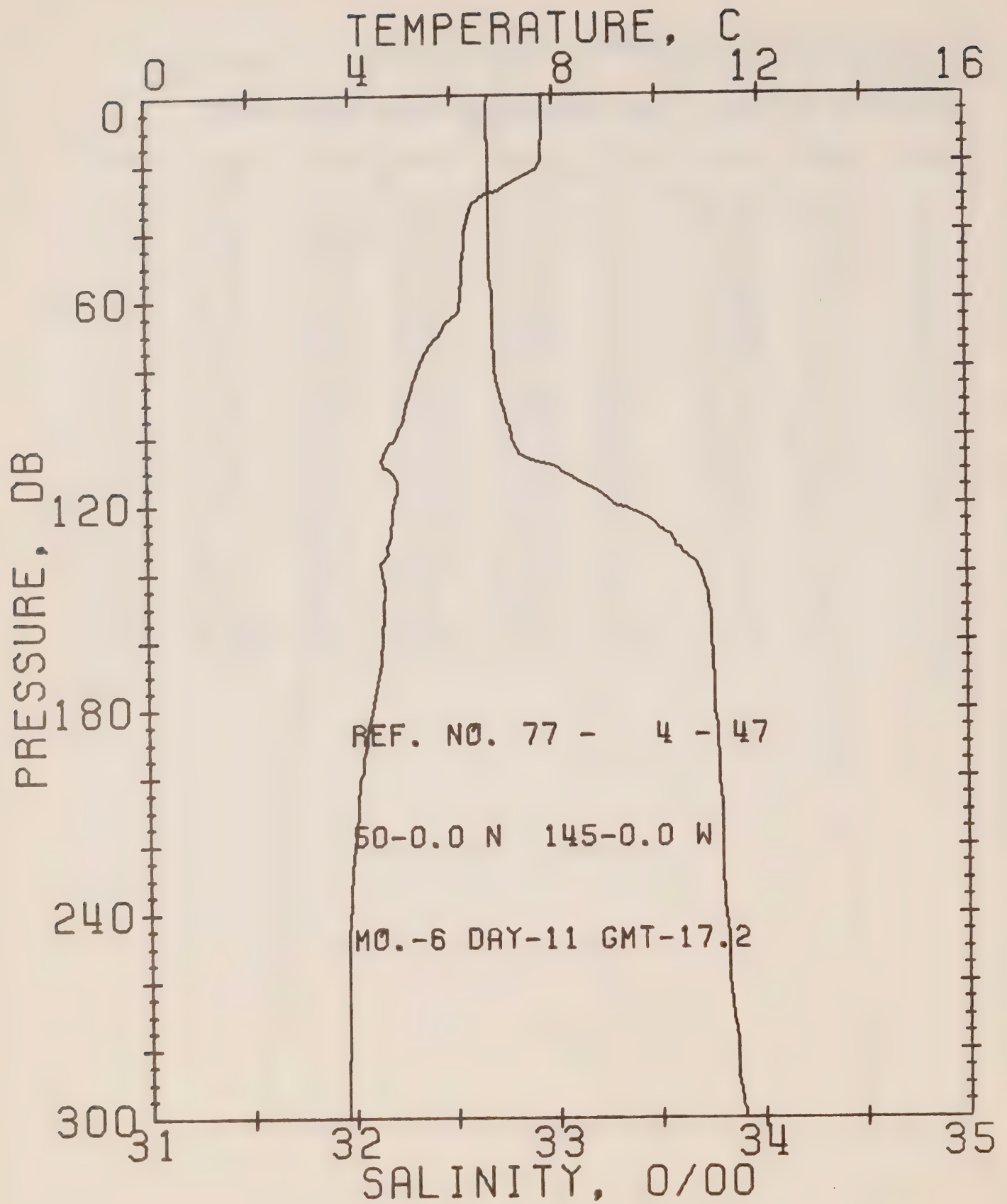
DATE 10/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 205 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.18	32.71	0	25.48	251.5	0.0	0.0	1481.
10	8.17	32.71	10	25.48	251.7	0.25	0.01	1481.
20	7.28	32.71	20	25.60	239.9	0.50	0.05	1477.
30	6.73	32.71	30	25.68	232.9	0.73	0.11	1475.
50	6.32	32.72	50	25.74	227.3	1.19	0.30	1474.
75	5.89	32.76	75	25.82	219.5	1.75	0.65	1473.
100	4.57	32.94	99	26.12	191.8	2.27	1.12	1468.
125	4.73	33.56	124	26.59	147.0	2.70	1.60	1470.
150	4.50	33.73	149	26.75	131.9	3.04	2.03	1470.
175	4.33	33.78	174	26.81	126.9	3.37	2.62	1469.
200	4.16	33.80	199	26.84	123.8	3.68	3.22	1469.
225	4.00	33.83	223	26.88	120.1	3.98	3.88	1469.
250	3.91	33.86	248	26.91	117.1	4.28	4.60	1469.
300	3.85	33.90	298	26.95	113.9	4.86	6.21	1470.
400	3.75	34.05	397	27.08	102.1	5.94	10.05	1471.
500	3.59	34.16	496	27.18	93.6	6.91	14.52	1472.
600	3.45	34.23	595	27.25	87.6	7.82	19.60	1473.
800	3.11	34.33	793	27.37	77.8	9.47	31.33	1475.
1000	2.80	34.41	990	27.45	70.0	10.94	44.81	1477.
1200	2.53	34.47	1188	27.53	63.5	12.27	59.71	1480.
1500	2.29	34.53	1483	27.60	58.0	14.08	84.61	1484.



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REFERENCE NO. 77- 4- 47

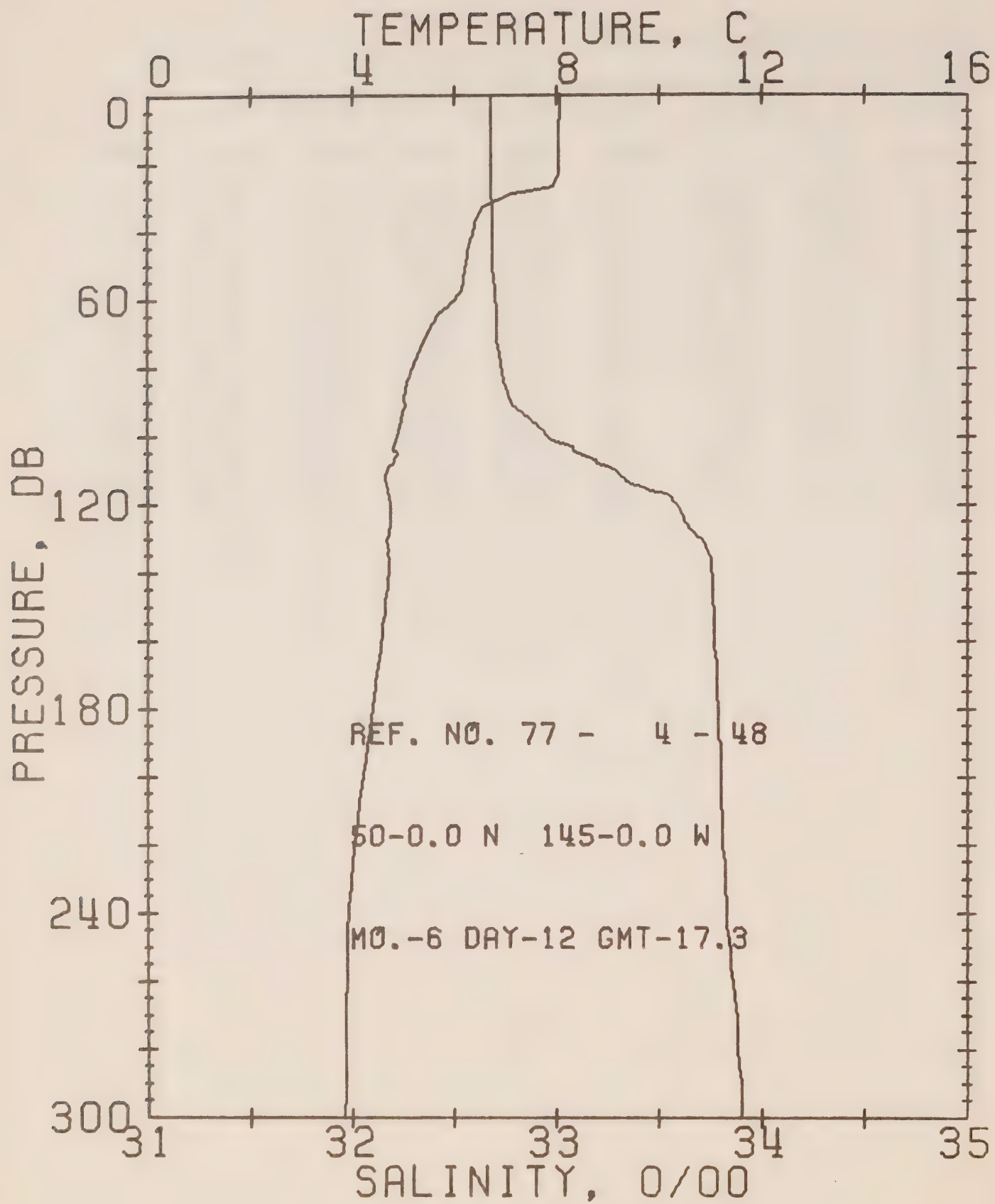
DATE 11/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.2

RESULTS OF STP CAST 106 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DLTA D	POT. FN	SOUND
0	7.80	32.69	0	25.51	247.7	0.0	0.0	1479.
10	7.80	32.68	10	25.51	248.8	0.25	0.01	1479.
20	7.74	32.69	20	25.52	247.5	0.50	0.05	1479.
30	6.58	32.69	30	25.68	232.4	0.74	0.11	1475.
50	6.22	32.69	50	25.73	228.3	1.20	0.30	1474.
75	5.48	32.70	75	25.83	219.0	1.76	0.66	1471.
100	4.88	32.79	99	25.96	206.4	2.29	1.13	1469.
125	4.79	33.48	124	26.52	153.9	2.75	1.65	1470.
150	4.62	33.74	149	26.75	132.3	3.10	2.14	1470.
175	4.43	33.77	174	26.79	128.6	3.42	2.68	1470.
200	4.13	33.79	199	26.84	124.2	3.74	3.28	1469.
225	3.97	33.80	223	26.86	122.0	4.05	3.95	1469.
250	3.88	33.83	248	26.89	119.1	4.35	4.68	1469.
300	3.84	33.90	298	26.95	113.8	4.93	6.32	1470.



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REFERENCE NO. 77- 4- 48

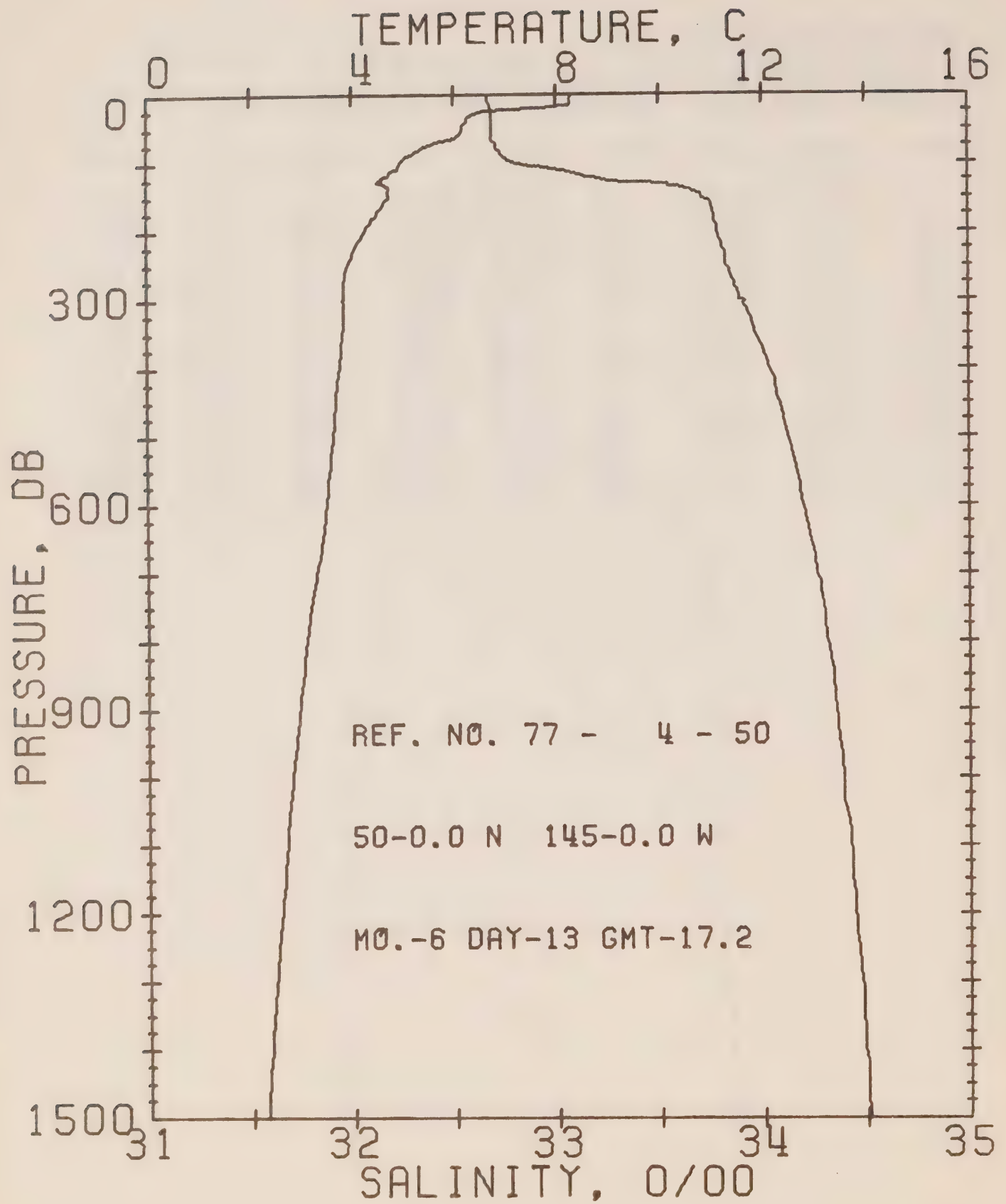
DATE 12/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 105 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	8.07	32.68	0	25.47	252.2	0.0	0.0	1480.
10	8.06	32.68	10	25.47	252.4	0.25	0.01	1480.
20	8.05	32.68	20	25.47	252.4	0.50	0.05	1480.
30	6.98	32.68	30	25.62	238.2	0.75	0.11	1476.
50	6.22	32.69	50	25.73	228.4	1.22	0.30	1474.
75	5.31	32.72	75	25.86	216.1	1.77	0.66	1470.
100	4.88	32.95	99	26.09	193.8	2.29	1.12	1469.
125	4.75	33.63	124	26.64	142.1	2.70	1.59	1470.
150	4.64	33.76	149	26.76	131.0	3.04	2.05	1470.
175	4.44	33.78	174	26.80	128.0	3.36	2.59	1470.
200	4.21	33.80	199	26.84	124.2	3.67	3.19	1469.
225	4.01	33.82	223	26.87	120.9	3.98	3.86	1469.
250	3.90	33.84	248	26.90	118.2	4.28	4.58	1469.
300	3.85	33.90	298	26.95	113.9	4.86	6.20	1470.



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REFERENCE NO. 77- 4- 50

DATE 13/ 6/77

STATION P

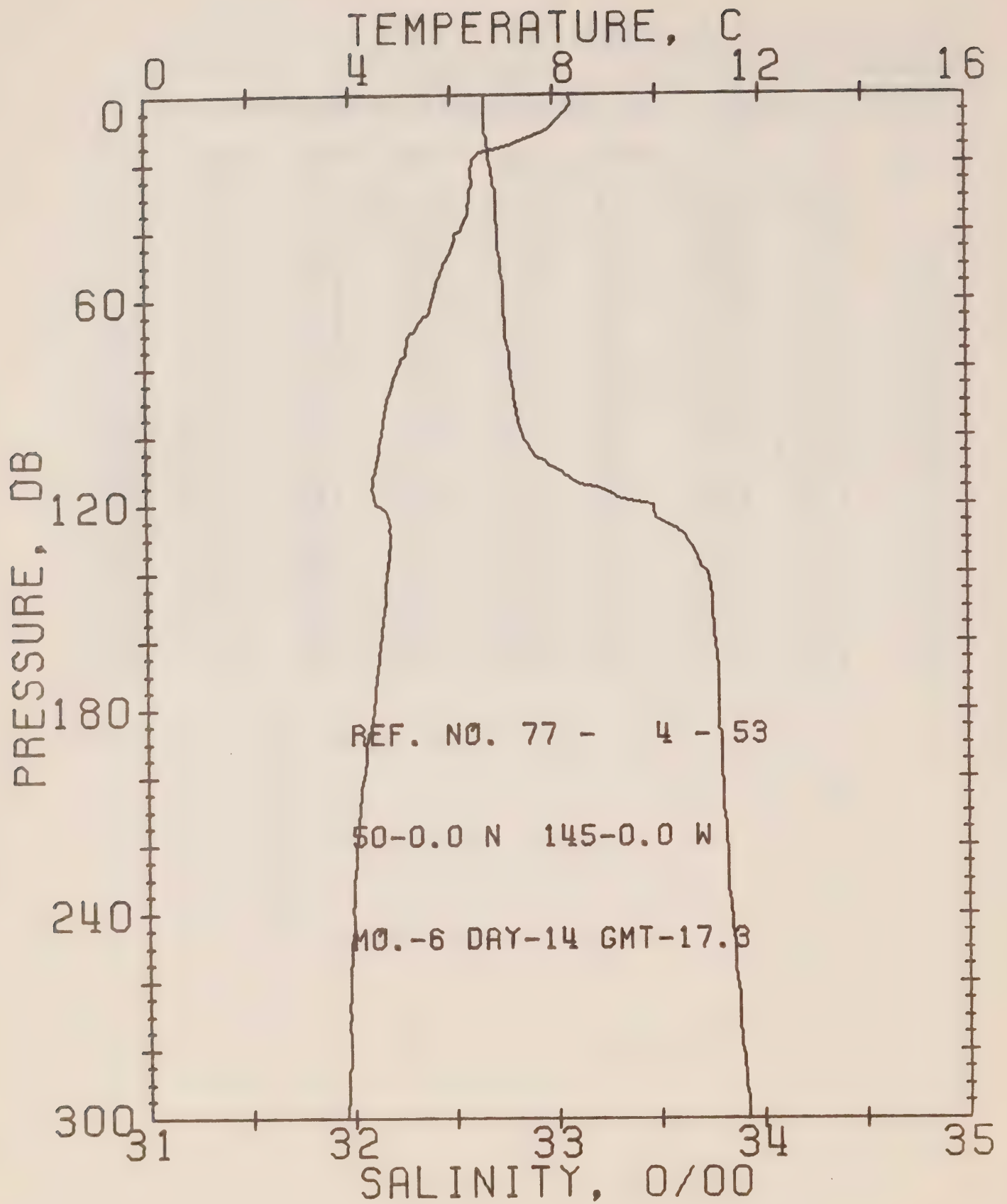
POSITION 50- 0.0N, 145- 0.0W

GMT 17.2

RESULTS OF STP CAST

194 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	7.81	32.67	0	25.50	249.3	0.0	0.0	1479.
10	8.28	32.67	10	25.43	256.3	0.26	0.01	1481.
20	7.61	32.68	20	25.53	246.4	0.51	0.05	1479.
30	6.38	32.69	30	25.71	230.1	0.75	0.11	1474.
50	6.17	32.69	50	25.73	227.8	1.20	0.30	1474.
75	5.51	32.71	75	25.83	218.9	1.76	0.66	1471.
100	4.95	32.80	99	25.96	206.2	2.30	1.13	1470.
125	4.58	33.24	124	26.36	169.1	2.77	1.66	1469.
150	4.73	33.71	149	26.71	136.3	3.13	2.17	1471.
175	4.47	33.76	174	26.78	129.5	3.46	2.72	1470.
200	4.23	33.78	199	26.82	126.0	3.78	3.33	1469.
225	4.03	33.81	223	26.86	121.9	4.09	4.00	1469.
250	3.91	33.83	248	26.89	119.6	4.39	4.73	1469.
300	3.82	33.89	298	26.95	114.4	4.97	6.36	1469.
400	3.75	34.03	397	27.07	103.6	6.06	10.23	1471.
500	3.62	34.12	496	27.15	96.6	7.06	14.80	1472.
600	3.48	34.20	595	27.22	90.3	7.99	20.02	1473.
800	3.09	34.31	793	27.35	78.9	9.67	31.98	1475.
1000	2.81	34.39	990	27.44	71.4	11.17	45.69	1477.
1200	2.57	34.44	1188	27.50	65.9	12.54	61.01	1480.
1500	2.28	34.51	1483	27.58	59.2	14.40	86.59	1484.



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REFERENCE NO. 77- 4- 53

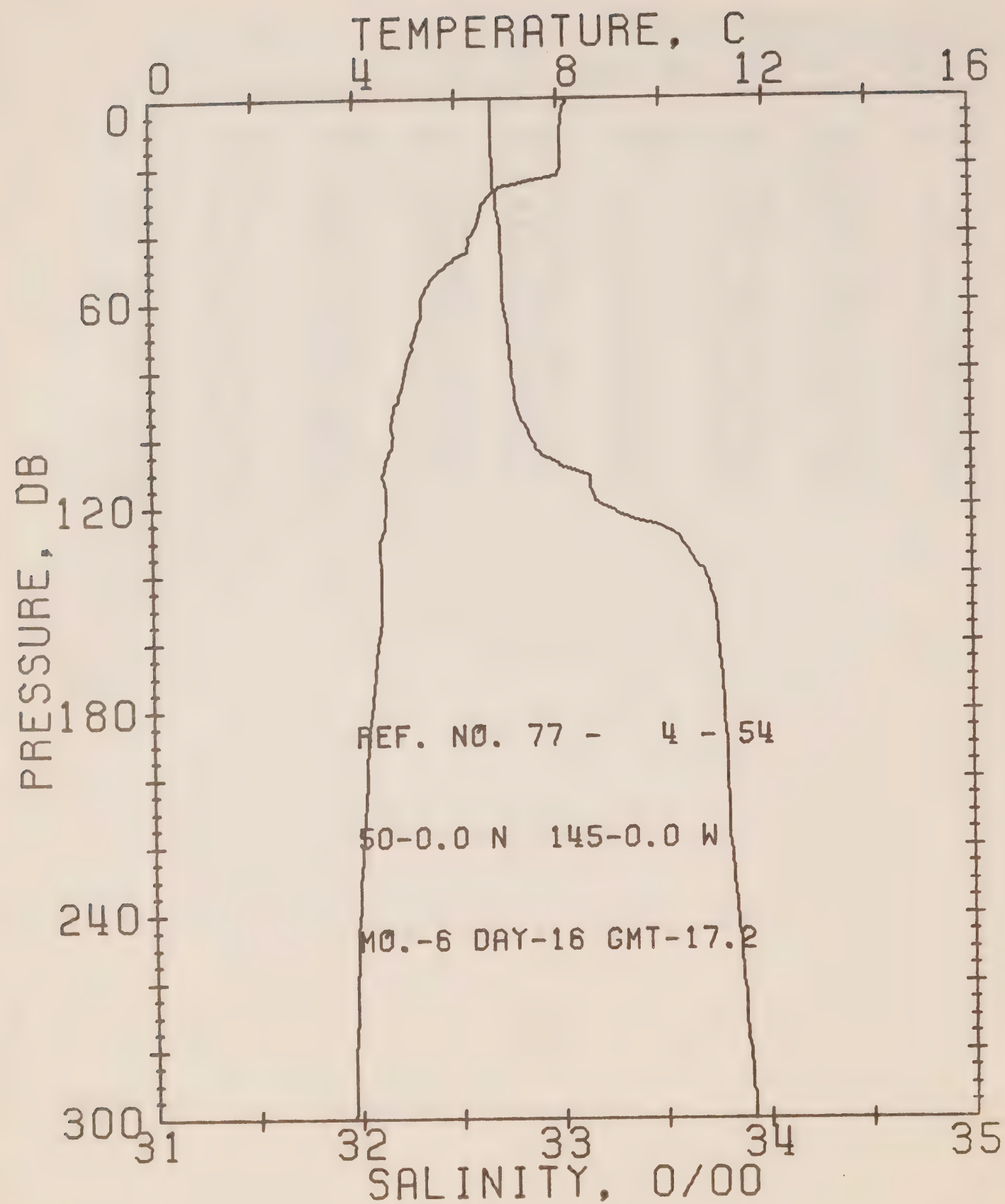
DATE 14/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 124 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.34	32.67	0	25.42	256.7	0.0	0.0	1481.
10	7.91	32.67	10	25.48	251.1	0.26	0.01	1480.
20	6.43	32.69	20	25.70	230.3	0.49	0.05	1474.
30	6.36	32.72	30	25.73	227.5	0.72	0.11	1474.
50	5.84	32.74	50	25.81	220.1	1.17	0.29	1472.
75	5.10	32.78	75	25.93	209.4	1.71	0.63	1470.
100	4.59	32.84	99	26.04	199.1	2.22	1.09	1468.
125	4.77	33.52	124	26.56	150.1	2.66	1.59	1470.
150	4.65	33.76	149	26.76	131.5	3.00	2.07	1470.
175	4.45	33.79	174	26.80	127.3	3.33	2.60	1470.
200	4.20	33.80	199	26.84	123.9	3.64	3.20	1469.
225	4.04	33.83	223	26.88	120.5	3.95	3.87	1469.
250	3.95	33.86	248	26.91	117.5	4.25	4.59	1469.
300	3.85	33.92	298	26.97	112.4	4.82	6.20	1470.



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REFERENCE NO. 77- 4- 54

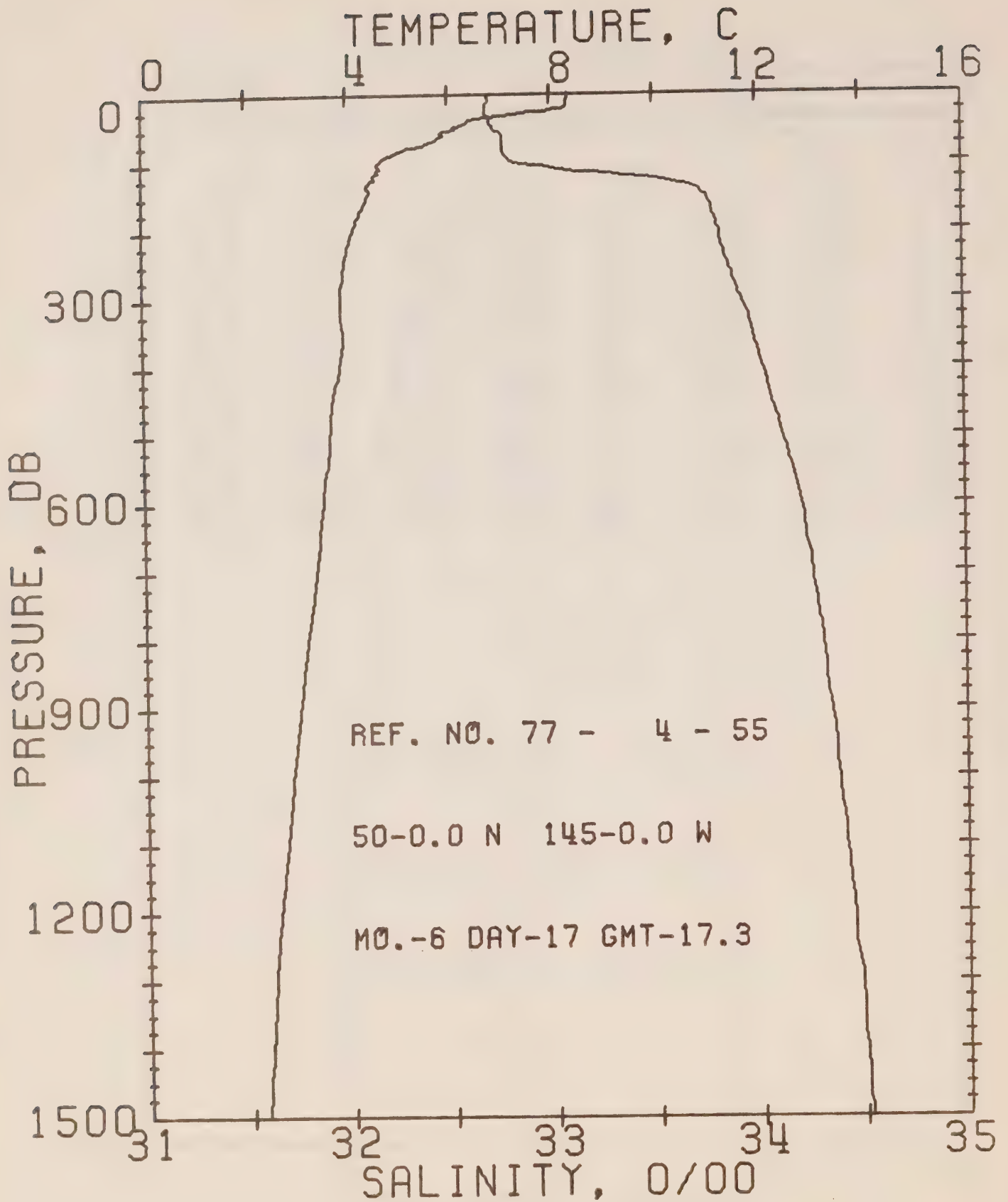
DATE 16/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.2

RESULTS OF STP CAST 130 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. FN	SOUND
0	8.00	32.68	0	25.48	251.2	0.0	0.0	1480.
10	8.09	32.68	10	25.47	252.8	0.25	0.01	1480.
20	8.07	32.69	20	25.48	252.0	0.51	0.05	1481.
30	6.59	32.70	30	25.69	231.9	0.75	0.11	1475.
50	5.74	32.73	50	25.82	219.7	1.20	0.30	1472.
75	5.08	32.76	75	25.92	210.4	1.74	0.64	1470.
100	4.71	32.86	99	26.04	199.1	2.25	1.10	1469.
125	4.56	33.46	124	26.53	152.8	2.70	1.61	1469.
150	4.48	33.75	149	26.77	130.4	3.04	2.09	1470.
175	4.30	33.78	174	26.81	126.1	3.36	2.62	1469.
200	4.16	33.80	199	26.84	123.8	3.68	3.22	1469.
225	4.03	33.82	223	26.87	120.8	3.98	3.88	1469.
250	3.95	33.86	248	26.91	117.5	4.28	4.60	1469.
300	3.85	33.92	298	26.97	112.4	4.85	6.21	1470.



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REFERENCE NO. 77- 4- 55

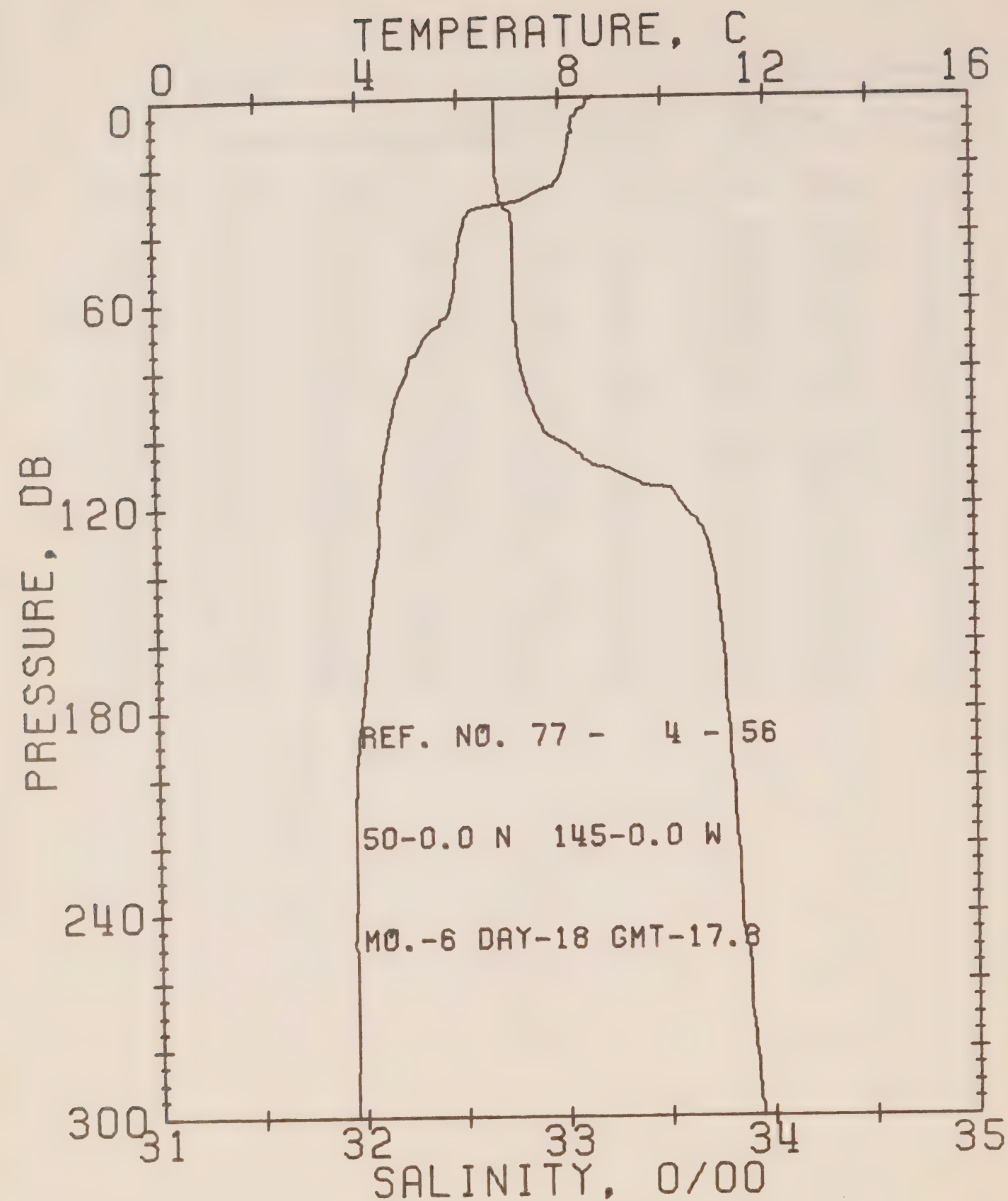
DATE 17/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 204 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.37	32.70	0	25.44	254.9	0.0	0.0	1481.
10	8.35	32.70	10	25.44	255.1	0.26	0.01	1481.
20	8.32	32.69	20	25.44	255.5	0.51	0.05	1481.
30	7.32	32.69	30	25.58	242.0	0.76	0.12	1478.
50	6.10	32.72	50	25.77	224.7	1.22	0.30	1473.
75	5.51	32.77	75	25.88	214.3	1.77	0.65	1471.
100	4.64	32.83	99	26.02	200.6	2.29	1.11	1468.
125	4.55	33.53	124	26.59	147.1	2.73	1.62	1469.
150	4.41	33.75	149	26.78	129.3	3.07	2.09	1469.
175	4.24	33.78	174	26.82	125.6	3.39	2.62	1469.
200	4.12	33.82	199	26.86	121.9	3.70	3.21	1469.
225	4.01	33.83	223	26.88	120.0	4.00	3.86	1469.
250	3.94	33.86	248	26.91	117.4	4.30	4.58	1469.
300	3.87	33.92	298	26.97	112.6	4.87	6.19	1470.
400	3.85	34.02	397	27.05	105.5	5.96	10.07	1471.
500	3.64	34.11	496	27.14	97.3	6.97	14.70	1472.
600	3.48	34.21	595	27.23	89.6	7.90	19.92	1473.
800	3.15	34.31	793	27.34	79.8	9.60	31.98	1475.
1000	2.84	34.38	990	27.43	72.4	11.12	45.91	1477.
1200	2.57	34.45	1188	27.51	65.7	12.50	61.39	1480.
1500	2.30	34.52	1483	27.59	58.8	14.35	86.83	1484.



OFFSHORE OCEANOGRAPHY GROUP

REFERENCE NO. 77- 4- 56

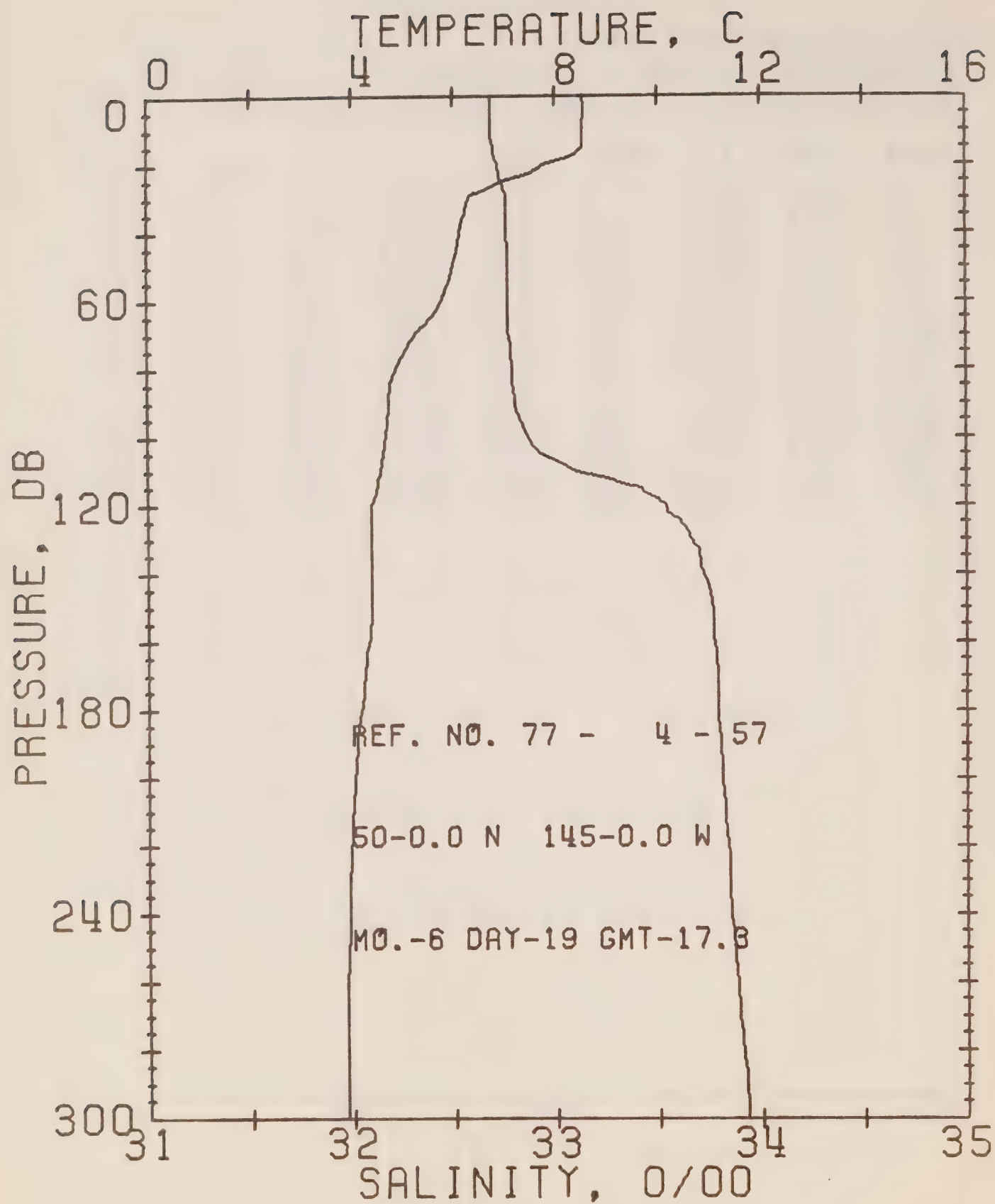
DATE 18/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 118 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	8.69	32.69	0	25.38	260.2	0.0	0.0	1483.
10	8.29	32.69	10	25.44	254.9	0.26	0.01	1481.
20	8.09	32.69	20	25.47	252.2	0.51	0.05	1481.
30	7.26	32.71	30	25.61	239.6	0.76	0.11	1478.
50	5.95	32.77	50	25.82	219.2	1.20	0.30	1473.
75	5.11	32.79	75	25.94	208.5	1.74	0.64	1470.
100	4.56	32.96	99	26.13	190.0	2.24	1.09	1468.
125	4.35	33.66	124	26.71	135.6	2.64	1.54	1469.
150	4.20	33.75	149	26.80	127.5	2.97	2.00	1468.
175	4.04	33.78	174	26.84	123.9	3.28	2.51	1468.
200	3.87	33.81	199	26.88	119.7	3.59	3.10	1468.
225	3.83	33.84	223	26.91	117.6	3.88	3.74	1468.
250	3.82	33.87	248	26.93	115.1	4.17	4.44	1469.
300	3.82	33.94	298	26.99	110.6	4.74	6.03	1470.



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REFERENCE NO. 77- 4- 57

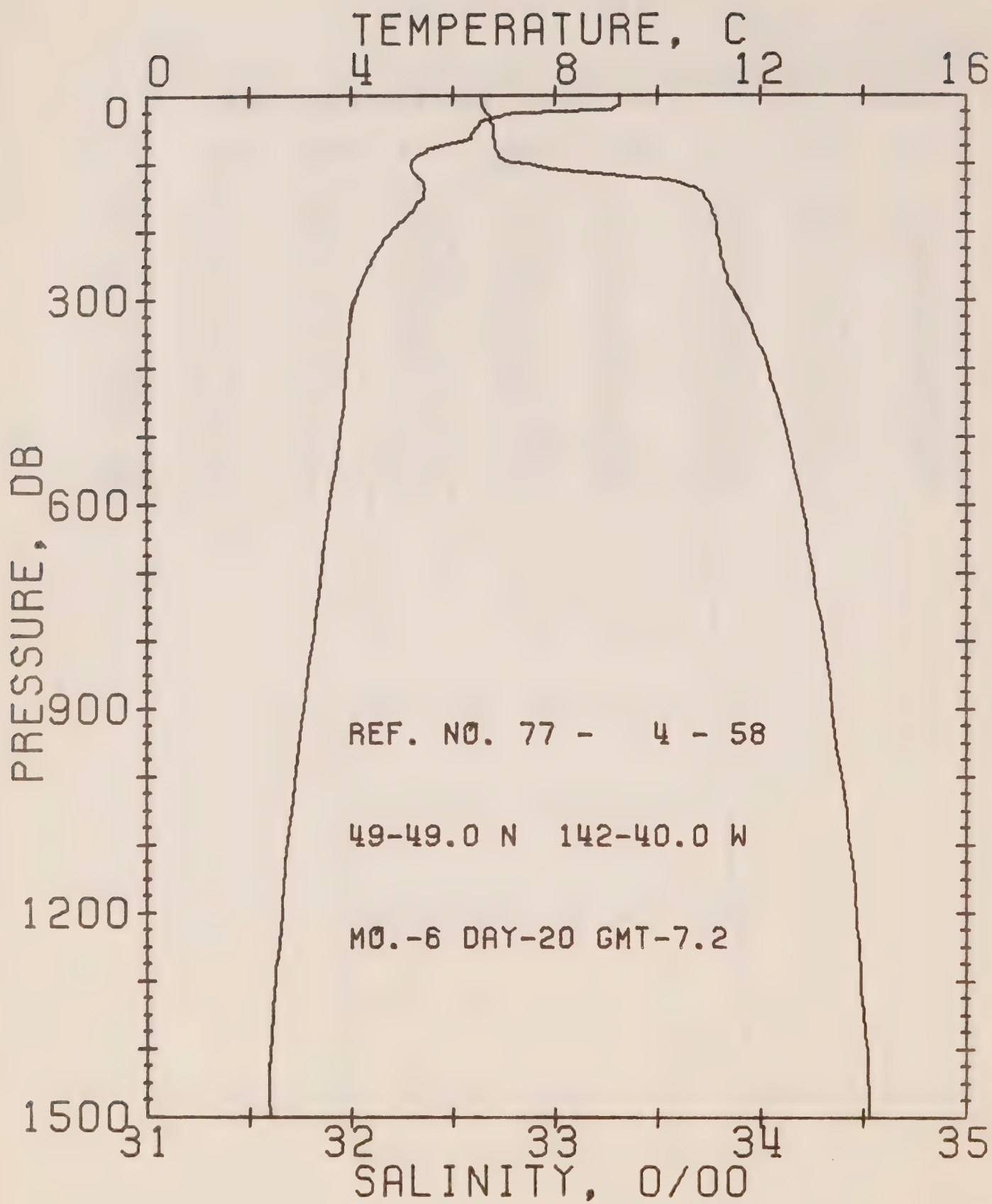
DATE 19/ 6/77

STATION P

POSITION 50- 0.0N, 145- 0.0W GMT 17.3

RESULTS OF STP CAST 107 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	8.57	32.69	0	25.40	258.5	0.0	0.0	1482.
10	8.56	32.69	10	25.40	258.8	0.26	0.01	1482.
20	7.77	32.72	20	25.54	245.6	0.51	0.05	1479.
30	6.30	32.76	30	25.77	223.9	0.75	0.11	1474.
50	5.99	32.77	50	25.82	219.7	1.19	0.29	1473.
75	5.02	32.78	75	25.94	208.2	1.73	0.63	1469.
100	4.65	32.86	99	26.05	198.2	2.24	1.09	1468.
125	4.36	33.61	124	26.67	139.1	2.66	1.57	1469.
150	4.36	33.76	149	26.79	128.1	2.99	2.03	1469.
175	4.21	33.79	174	26.83	124.8	3.31	2.55	1469.
200	4.02	33.81	199	26.86	121.6	3.62	3.14	1469.
225	3.95	33.84	223	26.89	118.8	3.92	3.79	1469.
250	3.90	33.87	248	26.92	116.5	4.21	4.51	1469.
300	3.86	33.93	298	26.97	111.8	4.78	6.10	1470.



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REFERENCE NO. 77- 4- 58

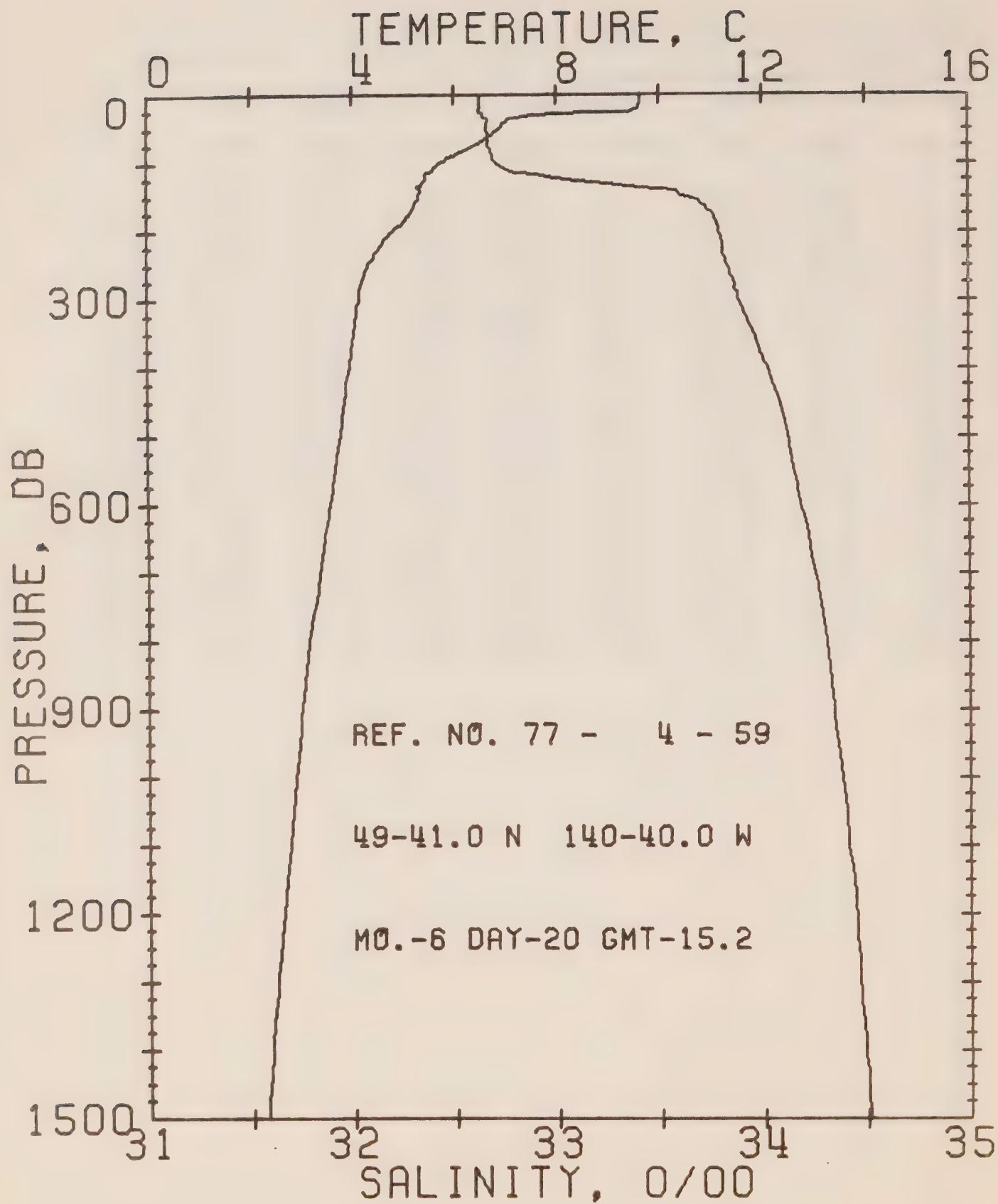
DATE 20/ 6/77

STATION 12

POSITION 49-49.0N, 142-40.0W GMT 7.2

RESULTS OF STP CAST 173 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	9.29	32.64	0	25.25	272.8	0.0	0.0	1485.
10	9.29	32.64	10	25.25	273.2	0.27	0.01	1485.
20	9.15	32.65	20	25.28	270.3	0.55	0.06	1485.
30	6.98	32.68	30	25.62	238.3	0.80	0.12	1476.
50	6.44	32.70	50	25.71	230.3	1.26	0.31	1475.
75	5.72	32.71	75	25.80	221.3	1.83	0.67	1472.
100	5.18	32.83	99	25.97	206.1	2.37	1.15	1470.
125	5.39	33.56	124	26.51	154.6	2.83	1.68	1473.
150	5.45	33.73	149	26.64	142.7	3.20	2.19	1474.
175	5.14	33.77	174	26.71	136.1	3.55	2.76	1473.
200	4.79	33.79	199	26.76	131.3	3.88	3.40	1472.
225	4.55	33.81	223	26.80	127.6	4.20	4.10	1471.
250	4.36	33.82	248	26.84	124.8	4.52	4.86	1471.
300	4.07	33.87	298	26.91	118.4	5.13	6.57	1471.
400	3.91	34.04	397	27.06	104.9	6.23	10.49	1472.
500	3.78	34.13	496	27.14	97.4	7.24	15.13	1473.
600	3.56	34.20	595	27.22	90.8	8.18	20.40	1474.
800	3.23	34.31	793	27.34	80.5	9.90	32.61	1476.
1000	2.90	34.40	990	27.44	72.0	11.43	46.59	1478.
1200	2.63	34.47	1188	27.52	64.7	12.78	61.79	1480.
1500	2.39	34.53	1484	27.59	59.0	14.62	87.01	1484.



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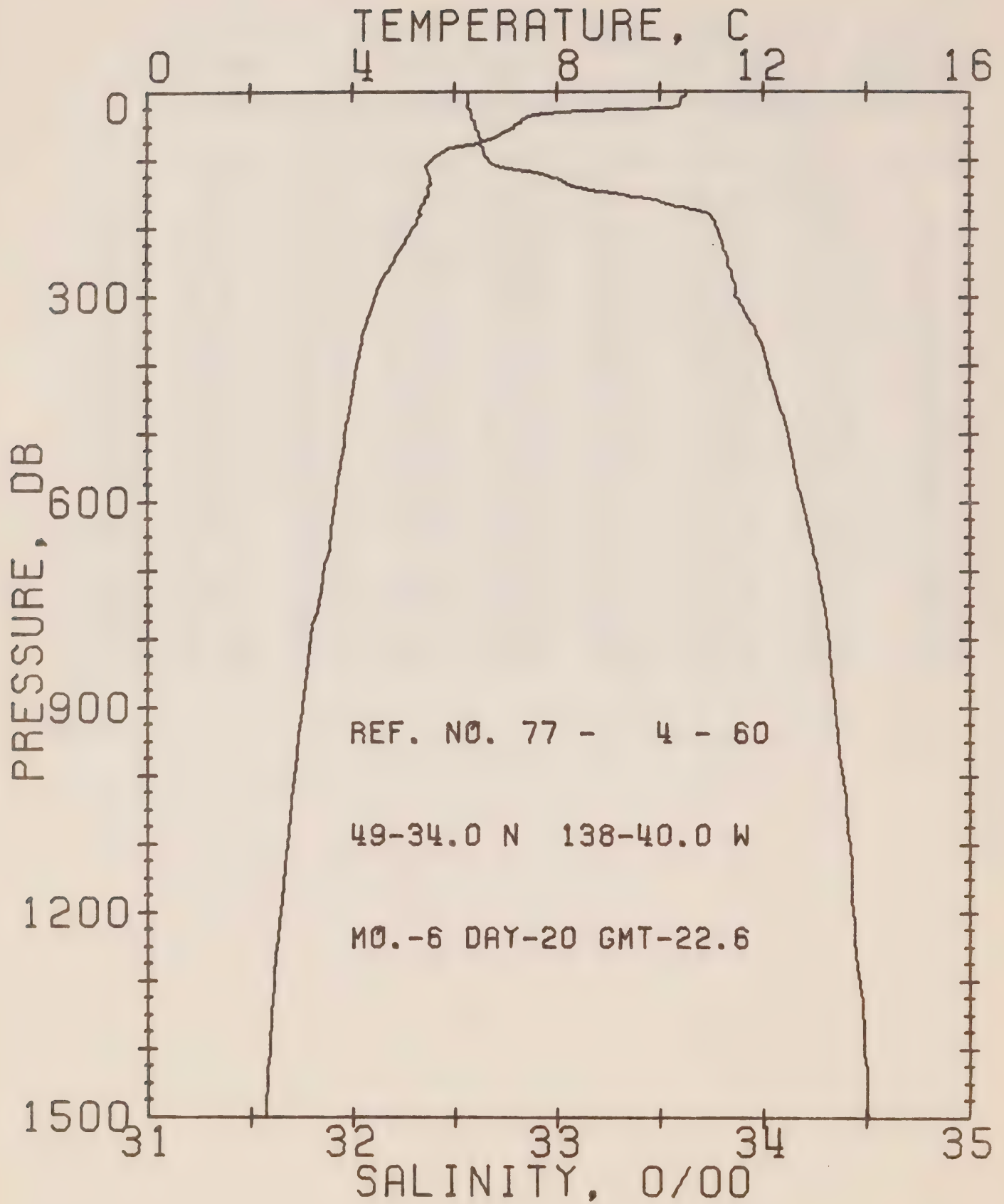
DATE 20/ 6/77

STATION 11

POSITION 49-41.0N, 140-40.0W GMT 15.2

RESULTS OF STP CAST 161 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PCT. EN	SOUND
0	9.66	32.63	0	25.18	279.3	0.0	0.0	1486.
10	9.66	32.63	10	25.18	279.7	0.28	0.01	1486.
20	9.59	32.63	20	25.19	278.8	0.56	0.06	1486.
30	7.80	32.64	30	25.48	251.7	0.83	0.13	1480.
50	6.89	32.66	50	25.62	238.9	1.31	0.32	1476.
75	6.40	32.67	75	25.69	232.3	1.90	0.70	1475.
100	5.75	32.70	99	25.80	222.3	2.47	1.20	1473.
125	5.43	33.07	124	26.13	191.2	3.00	1.81	1472.
150	5.31	33.63	149	26.58	148.6	3.41	2.38	1473.
175	5.13	33.76	174	26.70	137.1	3.76	2.97	1473.
200	4.77	33.79	199	26.77	131.0	4.10	3.61	1472.
225	4.52	33.81	223	26.81	127.1	4.42	4.30	1471.
250	4.31	33.83	248	26.85	123.6	4.73	5.06	1471.
300	4.13	33.88	298	26.91	118.3	5.33	6.75	1471.
400	3.93	34.02	397	27.04	106.3	6.45	10.73	1472.
500	3.75	34.12	496	27.14	97.7	7.47	15.38	1473.
600	3.55	34.18	595	27.21	91.9	8.42	20.70	1474.
800	3.12	34.31	793	27.35	79.4	10.12	32.83	1475.
1000	2.86	34.38	990	27.43	72.7	11.65	46.78	1478.
1200	2.61	34.45	1188	27.50	66.1	13.03	62.30	1480.
1500	2.29	34.51	1484	27.58	59.4	14.91	88.10	1484.



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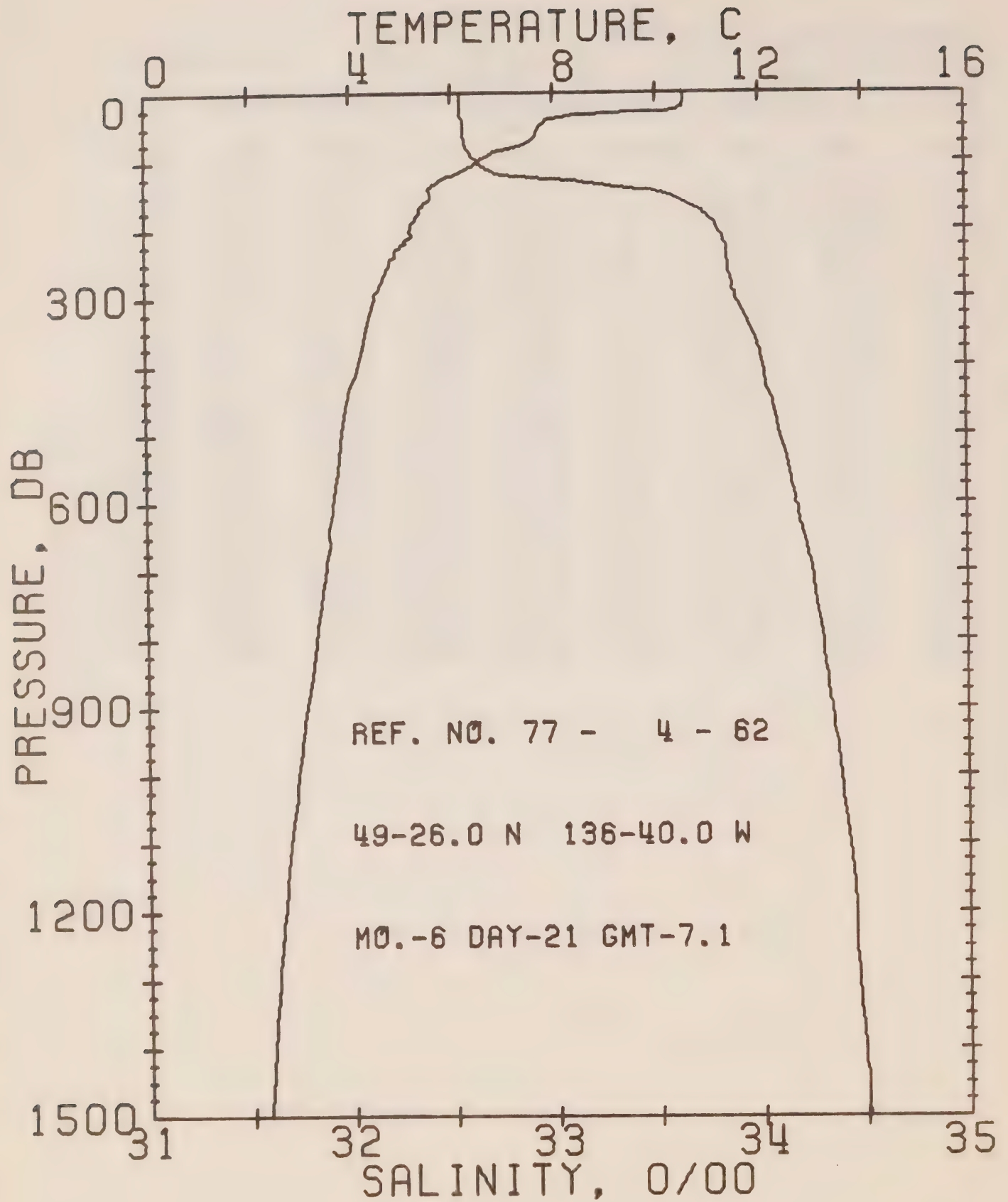
DATE 20/ 6/77

STATION 10

POSITION 49-34.0N, 138-40.0W GMT 22.6

RESULTS OF STP CAST 185 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.51	32.58	0	25.00	296.5	0.0	0.0	1489.
10	10.44	32.57	10	25.01	296.5	0.30	0.02	1489.
20	10.38	32.57	20	25.02	295.8	0.59	0.06	1489.
30	8.14	32.58	30	25.38	261.3	0.87	0.13	1481.
50	7.20	32.60	50	25.53	247.3	1.38	0.34	1477.
75	6.49	32.63	75	25.65	236.4	1.98	0.72	1475.
100	5.55	32.67	99	25.79	222.8	2.55	1.23	1472.
125	5.52	32.98	124	26.04	199.3	3.08	1.84	1472.
150	5.50	33.32	149	26.31	173.9	3.56	2.50	1473.
175	5.31	33.72	174	26.65	142.1	3.96	3.16	1473.
200	5.19	33.78	199	26.71	136.7	4.30	3.82	1473.
225	4.98	33.80	223	26.75	132.6	4.64	4.55	1473.
250	4.78	33.83	248	26.80	128.7	4.97	5.34	1473.
300	4.44	33.87	298	26.87	122.4	5.59	7.09	1472.
400	4.09	34.02	397	27.02	108.2	6.73	11.15	1472.
500	3.85	34.12	496	27.13	99.2	7.77	15.90	1473.
600	3.65	34.19	595	27.20	92.4	8.73	21.27	1474.
800	3.17	34.32	793	27.35	79.4	10.44	33.45	1476.
1000	2.86	34.38	990	27.43	72.2	11.96	47.37	1478.
1200	2.58	34.44	1188	27.50	66.6	13.34	62.82	1480.
1500	2.28	34.51	1484	27.58	59.2	15.22	88.56	1484.



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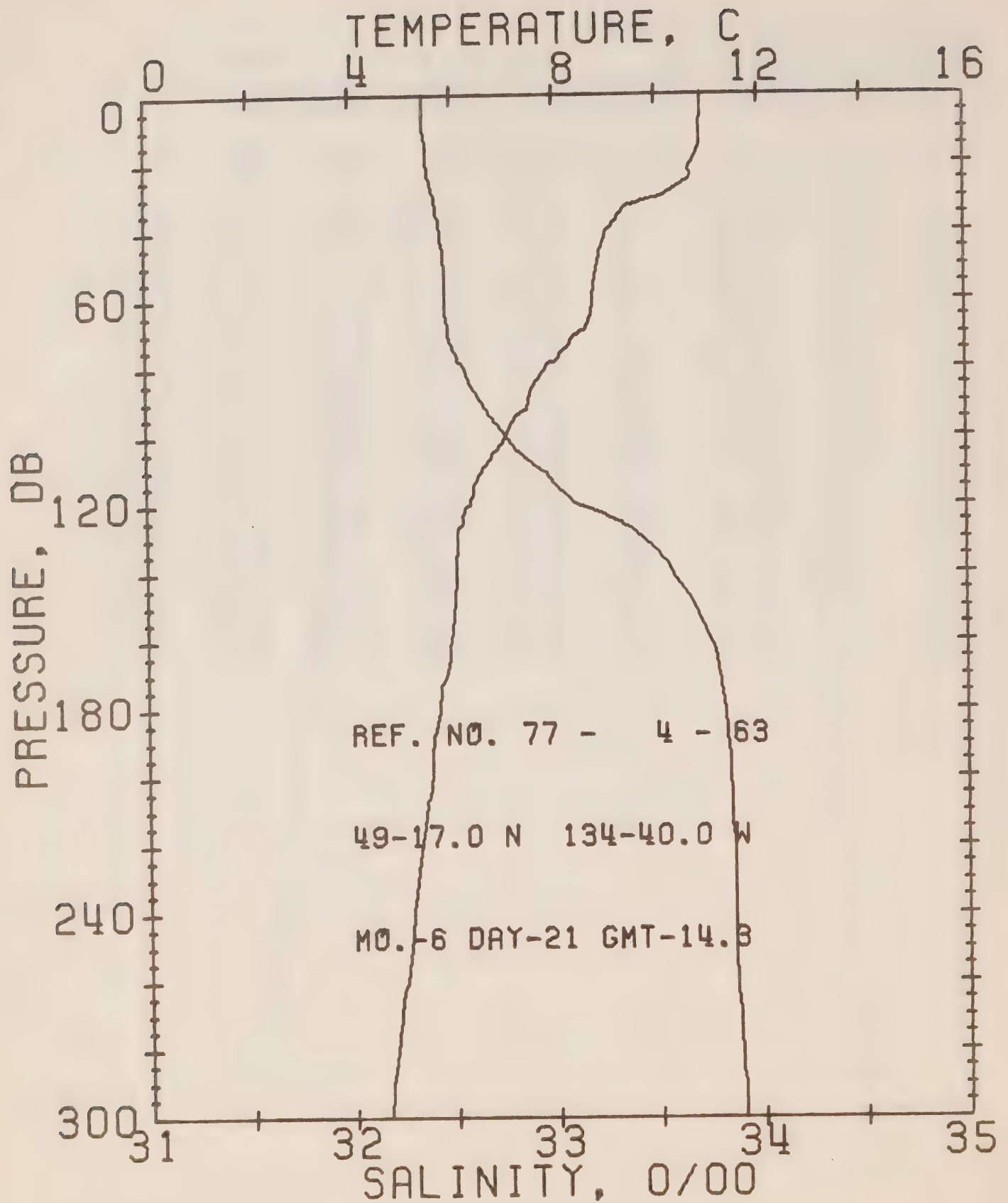
DATE 21/ 6/77

STATION 9

POSITION 49-26.0N, 136-40.0W GMT 7.1

RESULTS OF STP CAST 205 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.54	32.55	0	24.97	299.2	0.0	0.0	1489.
10	10.56	32.55	10	24.97	299.9	0.30	0.02	1489.
20	10.55	32.55	20	24.97	299.9	0.60	0.06	1490.
30	9.11	32.55	30	25.21	277.6	0.90	0.14	1484.
50	7.74	32.56	50	25.42	257.5	1.42	0.35	1480.
75	7.47	32.57	75	25.47	253.5	2.06	0.76	1479.
100	6.55	32.63	99	25.64	237.5	2.67	1.30	1476.
125	5.87	32.93	124	25.96	207.1	3.24	1.96	1474.
150	5.59	33.56	149	26.49	157.1	3.69	2.57	1474.
175	5.36	33.73	174	26.65	141.9	4.06	3.19	1474.
200	5.18	33.80	199	26.73	135.2	4.40	3.85	1473.
225	5.02	33.84	223	26.78	130.3	4.74	4.57	1473.
250	4.78	33.85	248	26.81	127.3	5.06	5.35	1473.
300	4.48	33.88	298	26.87	122.1	5.68	7.10	1472.
400	4.15	34.01	397	27.01	109.6	6.83	11.18	1473.
500	3.82	34.09	496	27.11	100.8	7.88	15.98	1473.
600	3.64	34.17	595	27.19	93.9	8.85	21.41	1474.
800	3.29	34.30	793	27.32	82.0	10.60	33.86	1476.
1000	2.92	34.38	990	27.42	73.3	12.15	48.07	1478.
1200	2.62	34.45	1188	27.50	66.0	13.54	63.59	1480.
1500	2.32	34.51	1484	27.58	59.7	15.43	89.58	1484.



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REFERENCE NO. 77- 4- 63

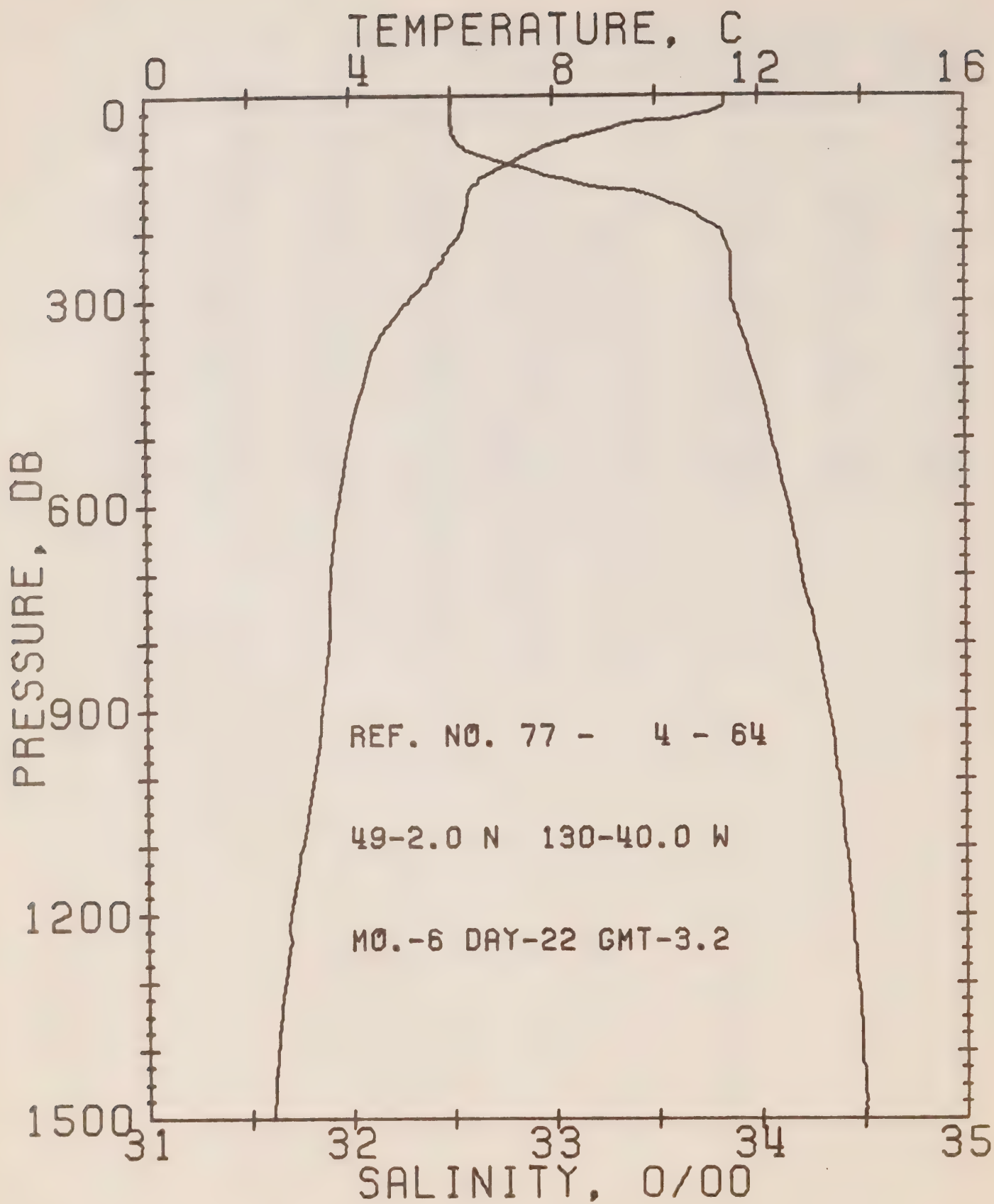
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STATION 8

POSITION 49-17.0N, 134-40.0W GMT 14.3

RESULTS OF STP CAST 108 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	10.90	32.37	0	24.77	318.5	0.0	0.0	1490.
10	10.89	32.37	10	24.77	318.7	0.32	0.02	1490.
20	10.71	32.38	20	24.81	315.2	0.64	0.06	1490.
30	10.13	32.42	30	24.94	303.0	0.95	0.14	1488.
50	8.87	32.46	50	25.18	280.7	1.52	0.38	1484.
75	8.17	32.51	75	25.32	267.6	2.21	0.82	1482.
100	7.04	32.76	99	25.67	234.2	2.84	1.38	1478.
125	6.18	33.32	124	26.23	181.7	3.37	1.98	1476.
150	6.01	33.68	149	26.53	153.4	3.78	2.55	1476.
175	5.73	33.80	174	26.67	140.6	4.15	3.16	1475.
200	5.53	33.84	199	26.72	135.9	4.49	3.82	1475.
225	5.28	33.86	223	26.76	131.8	4.82	4.54	1474.
250	5.08	33.86	248	26.79	129.8	5.15	5.33	1474.
300	4.66	33.90	298	26.87	122.6	5.78	7.09	1473.



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REFERENCE NO. 77- 4- 64

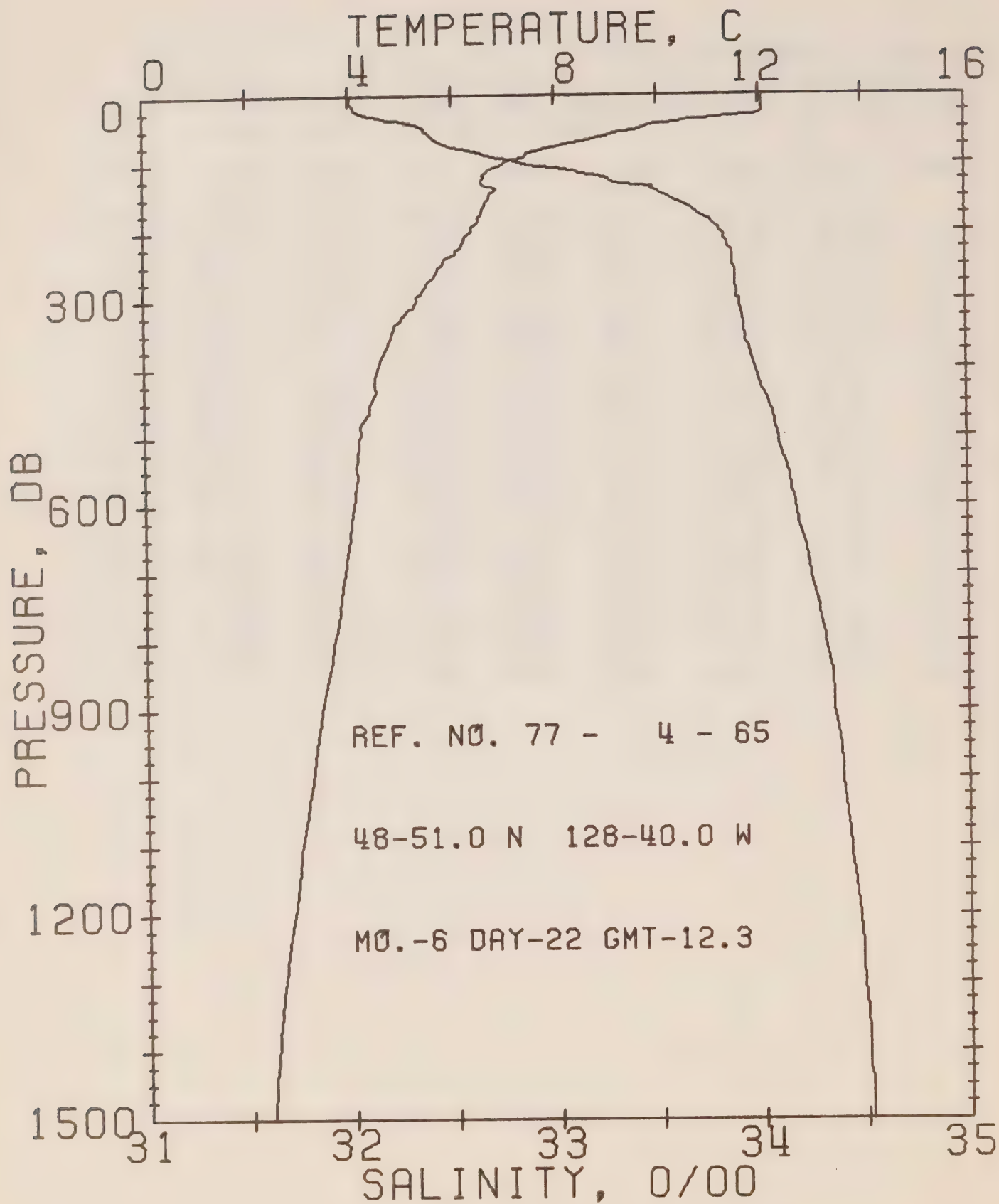
DATE 22/ 6/77

STATION 6

POSITION 49- 2.0N, 130-40.0W GMT 3.2

RESULTS OF STP CAST 188 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	11.35	32.51	0	24.80	315.8	0.0	0.0	1492.
10	11.35	32.51	10	24.80	316.2	0.32	0.02	1492.
20	11.24	32.50	20	24.81	315.2	0.63	0.06	1492.
30	10.73	32.50	30	24.90	306.8	0.94	0.14	1490.
50	9.04	32.51	50	25.19	279.8	1.53	0.38	1484.
75	7.85	32.56	75	25.41	259.5	2.20	0.81	1480.
100	7.15	32.79	99	25.69	232.9	2.82	1.36	1478.
125	6.55	33.11	124	26.02	202.0	3.36	1.98	1477.
150	6.35	33.51	149	26.36	169.7	3.82	2.62	1477.
175	6.28	33.71	174	26.52	154.7	4.23	3.29	1477.
200	6.20	33.82	199	26.62	145.3	4.60	4.01	1478.
225	5.95	33.86	223	26.68	140.0	4.96	4.78	1477.
250	5.73	33.87	248	26.72	136.7	5.30	5.62	1477.
300	5.17	33.87	298	26.79	130.6	5.97	7.49	1475.
400	4.34	33.98	397	26.96	114.3	7.19	11.80	1473.
500	3.98	34.06	496	27.07	105.0	8.28	16.80	1474.
600	3.75	34.14	595	27.15	97.2	9.29	22.45	1474.
800	3.56	34.28	793	27.28	86.7	11.12	35.51	1477.
1000	3.25	34.38	991	27.39	76.7	12.75	50.46	1479.
1200	2.79	34.44	1188	27.49	68.2	14.20	66.64	1481.
1500	2.41	34.50	1484	27.56	61.5	16.13	93.12	1484.



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REFERENCE NO. 77- 4- 65

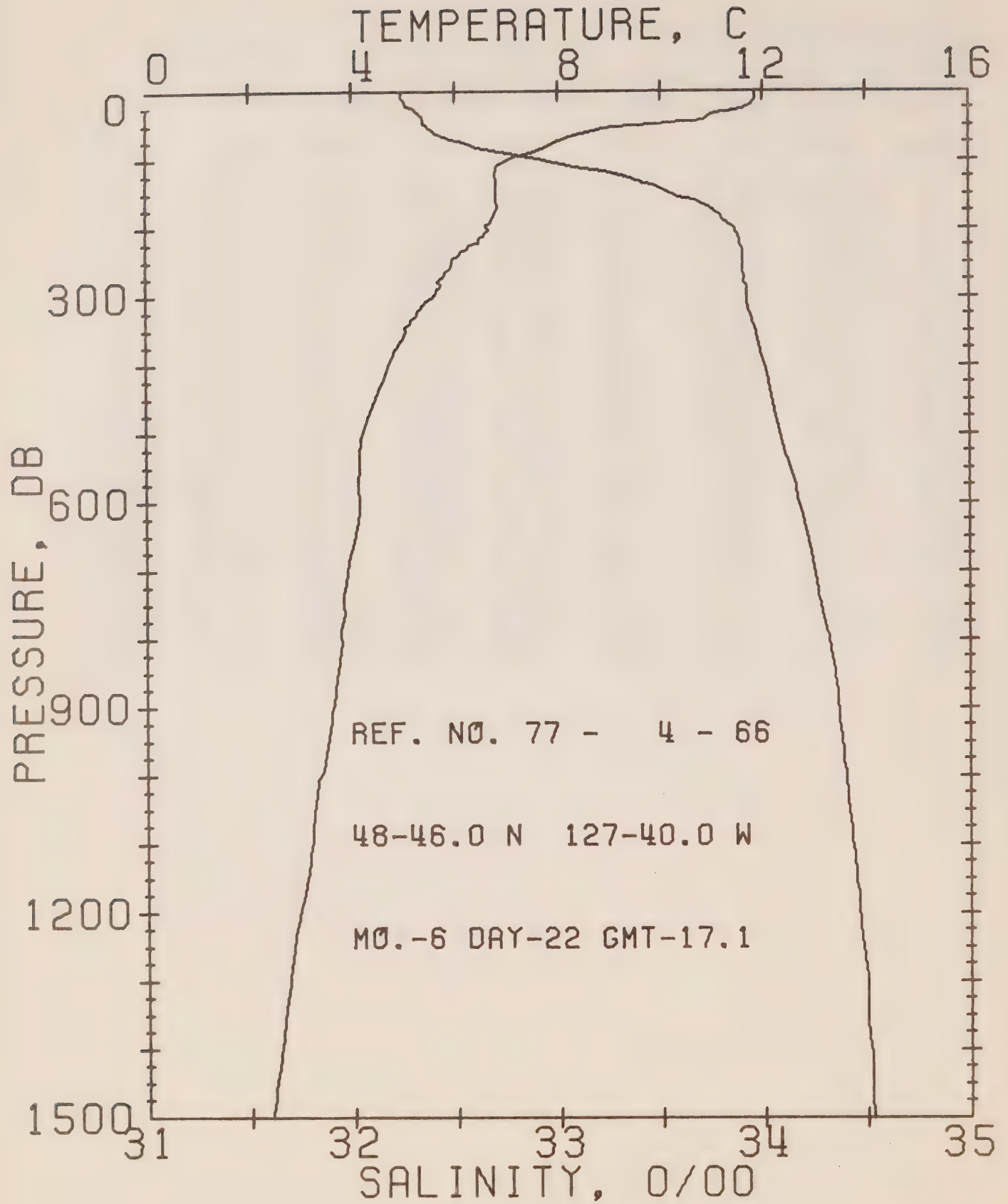
DATE 22/ 6/77

STATION 5

POSITION 48-51.0N, 128-40.0W GMT 12.3

RESULTS OF STP CAST 186 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	PDT. EN	SOUND
0	12.08	32.02	0	24.29	364.6	0.0	0.0	1494.
10	12.08	32.01	10	24.28	365.8	0.37	0.02	1494.
20	12.08	32.03	20	24.29	364.8	0.73	0.07	1494.
30	11.95	32.11	30	24.38	356.5	1.09	0.17	1494.
50	9.67	32.36	50	24.97	300.3	1.74	0.43	1487.
75	8.01	32.50	75	25.34	266.1	2.45	0.88	1481.
100	7.01	32.84	99	25.74	227.5	3.06	1.43	1478.
125	6.58	33.27	124	26.14	190.2	3.58	2.01	1477.
150	6.71	33.55	149	26.34	171.2	4.02	2.64	1478.
175	6.54	33.71	174	26.49	157.8	4.44	3.32	1478.
200	6.36	33.81	199	26.59	148.3	4.82	4.05	1478.
225	6.14	33.85	224	26.65	142.6	5.18	4.83	1478.
250	5.77	33.87	248	26.71	137.1	5.53	5.68	1477.
300	5.32	33.90	298	26.79	130.1	6.20	7.55	1476.
400	4.54	33.97	397	26.94	116.6	7.43	11.93	1474.
500	4.19	34.09	496	27.06	105.3	8.54	17.00	1475.
600	4.05	34.17	595	27.14	98.6	9.55	22.70	1476.
800	3.63	34.31	793	27.30	84.9	11.39	35.77	1477.
1000	3.20	34.39	991	27.40	75.6	12.99	50.37	1479.
1200	2.82	34.47	1188	27.50	66.7	14.41	66.31	1481.
1500	2.39	34.52	1484	27.58	59.8	16.29	92.08	1484.



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REFERENCE NO. 77- 4- 66

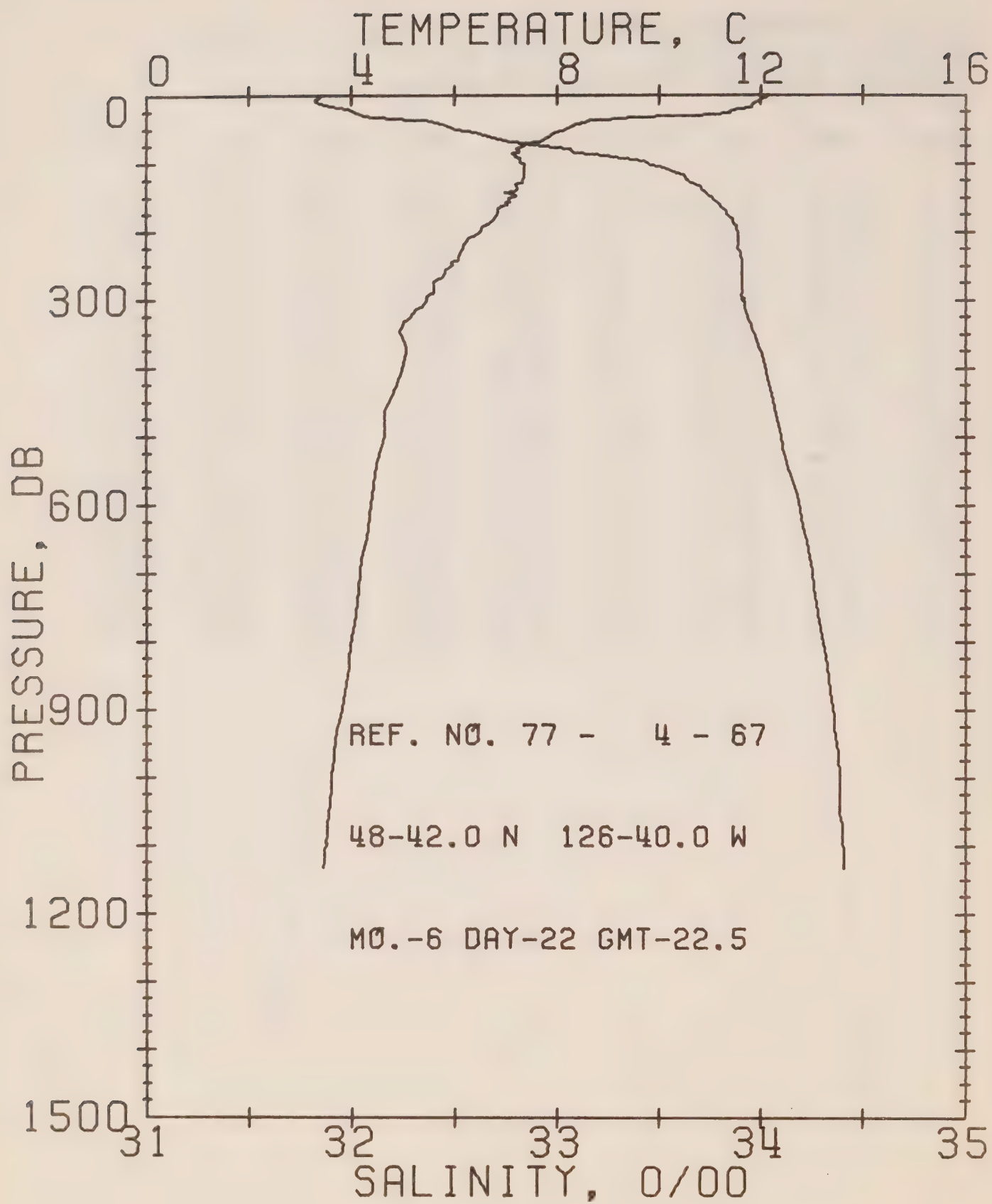
DATE 22/ 6/77

STATION 4

POSITION 48-46.0N, 127-40.0W GMT 17.1

RESULTS OF STP CAST 193 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	11.88	32.24	0	24.49	344.8	0.0	0.0	1494.
10	11.86	32.24	10	24.50	344.9	0.35	0.02	1494.
20	11.78	32.26	20	24.53	342.3	0.69	0.07	1494.
30	11.25	32.32	30	24.67	328.9	1.03	0.16	1492.
50	9.63	32.36	50	24.98	299.7	1.66	0.41	1486.
75	7.95	32.55	75	25.38	261.8	2.36	0.86	1481.
100	7.04	32.94	99	25.81	220.9	2.97	1.40	1478.
125	6.79	33.34	124	26.16	188.1	3.48	1.98	1478.
150	6.79	33.55	149	26.33	172.6	3.93	2.61	1479.
175	6.79	33.76	174	26.50	157.1	4.34	3.28	1479.
200	6.64	33.86	199	26.59	148.3	4.72	4.01	1479.
225	6.27	33.89	223	26.67	141.5	5.08	4.80	1478.
250	5.94	33.90	248	26.72	137.1	5.43	5.64	1477.
300	5.57	33.92	298	26.78	131.7	6.10	7.52	1477.
400	4.68	34.01	397	26.95	115.6	7.33	11.90	1475.
500	4.19	34.08	496	27.06	105.6	8.44	16.97	1475.
600	4.13	34.17	595	27.14	99.0	9.46	22.67	1476.
800	3.78	34.32	793	27.29	85.8	11.30	35.75	1478.
1000	3.36	34.40	991	27.40	76.7	12.92	50.64	1480.
1200	2.95	34.46	1188	27.49	68.7	14.38	66.92	1481.
1500	2.41	34.53	1484	27.59	59.3	16.28	93.02	1484.



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REFERENCE NO. 77- 4- 67

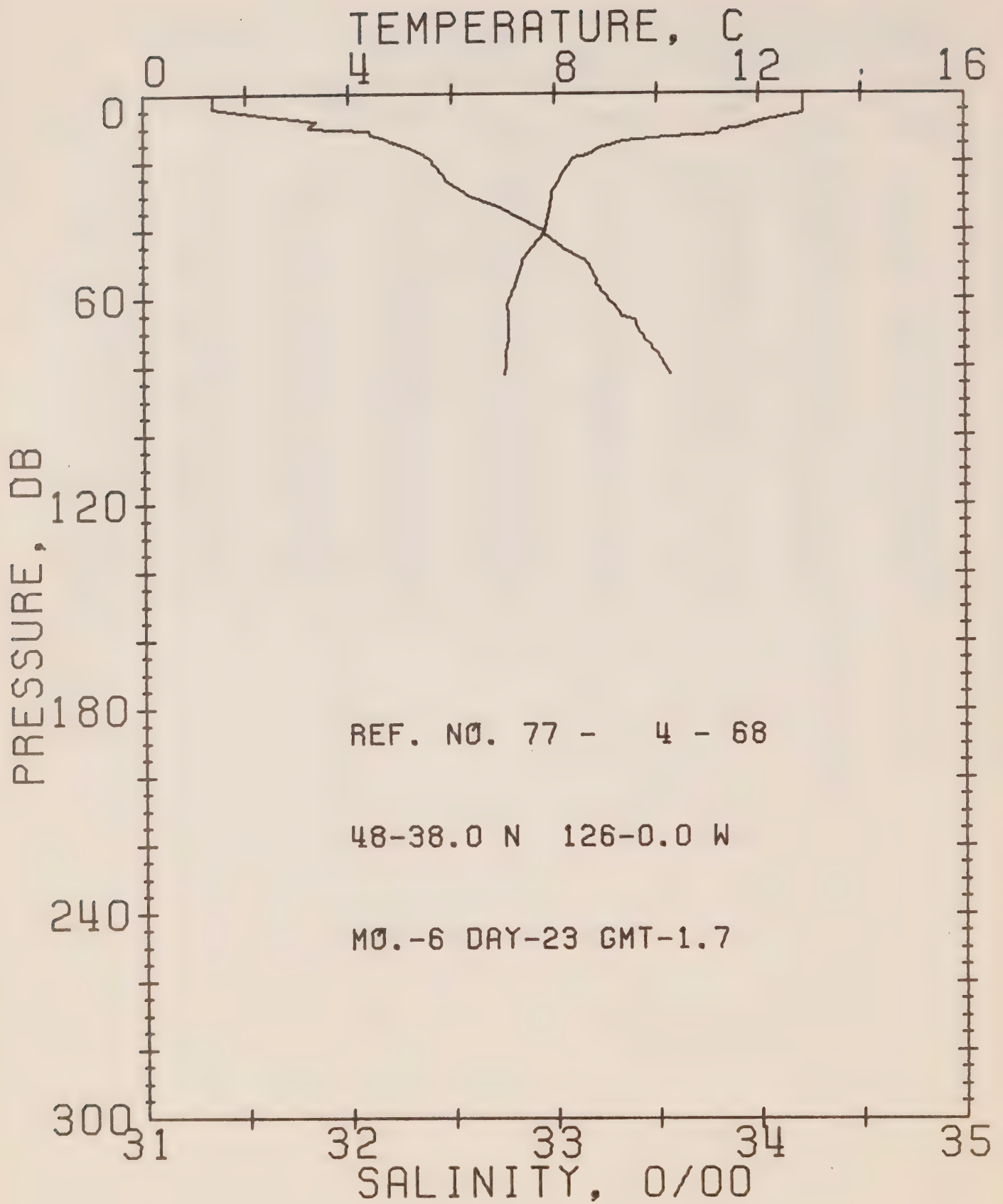
DATE 22/ 6/77

STATION 3

POSITION 48-42.0N, 126-40.0W GMT 22.5

RESULTS OF STP CAST 176 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	12.15	31.86	0	24.15	377.6	0.0	0.0	1494.
10	11.93	31.83	10	24.17	376.4	0.38	0.02	1493.
20	11.72	31.96	20	24.31	363.4	0.75	0.08	1493.
30	10.72	32.06	30	24.56	339.2	1.10	0.17	1490.
50	8.21	32.50	50	25.31	268.4	1.68	0.40	1481.
75	7.33	32.97	75	25.80	221.9	2.30	0.79	1479.
100	7.35	33.45	99	26.17	186.7	2.80	1.24	1480.
125	7.33	33.65	124	26.33	172.0	3.25	1.75	1481.
150	7.12	33.76	149	26.45	161.6	3.67	2.33	1480.
175	6.80	33.84	174	26.56	151.5	4.06	2.98	1480.
200	6.49	33.89	199	26.64	144.1	4.42	3.68	1479.
225	6.14	33.89	223	26.68	140.0	4.78	4.45	1478.
250	5.95	33.91	248	26.72	136.4	5.12	5.29	1478.
300	5.46	33.91	298	26.78	131.0	5.79	7.15	1476.
400	4.98	34.02	397	26.93	118.1	7.02	11.53	1476.
500	4.64	34.10	496	27.03	109.2	8.15	16.71	1476.
600	4.37	34.19	595	27.13	100.4	9.20	22.57	1477.
800	4.00	34.30	793	27.26	89.5	11.09	36.07	1479.
1000	3.60	34.39	991	27.37	80.2	12.78	51.54	1481.



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REFERENCE NO. 77- 4- 68

DATE 23/ 6/77

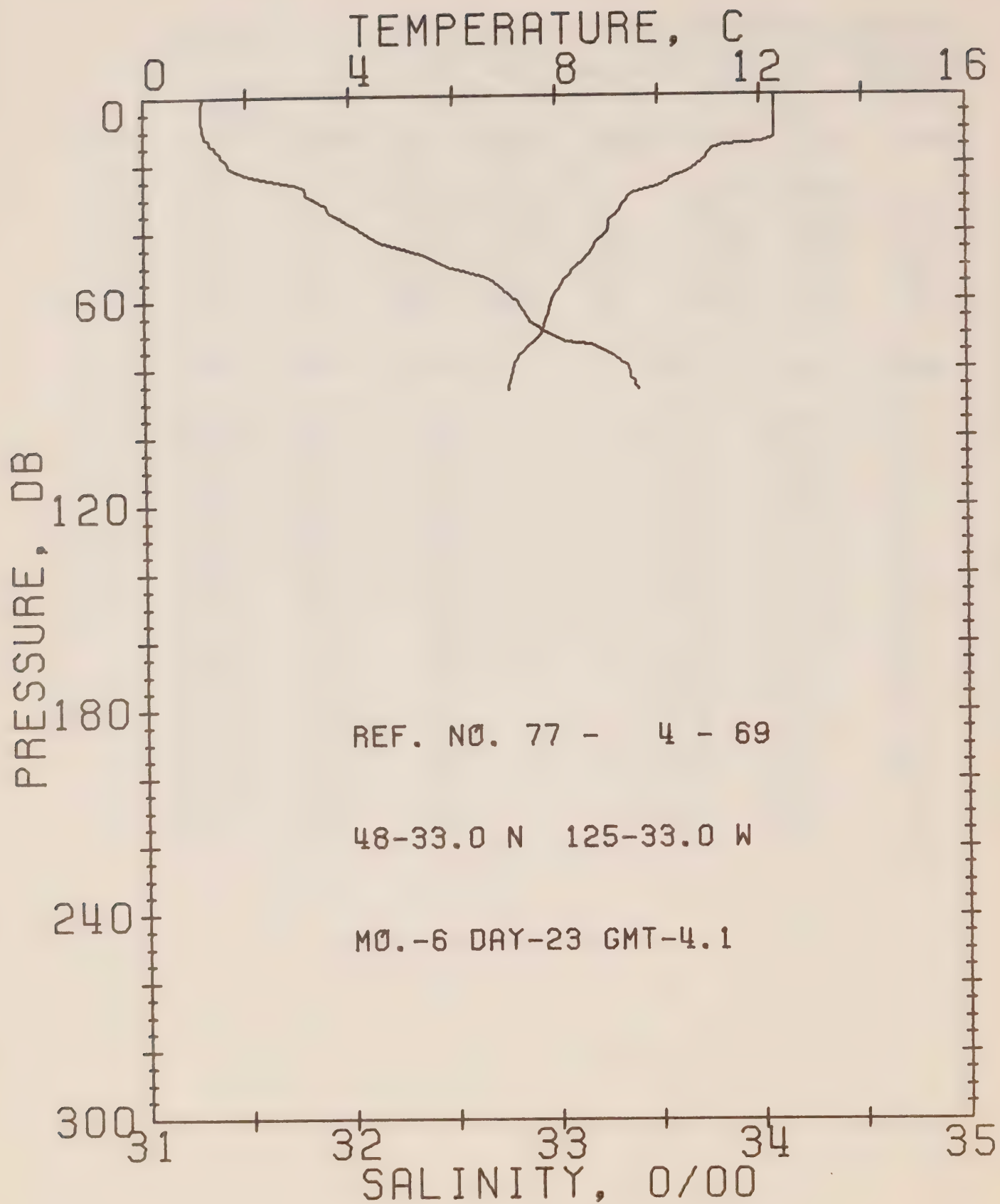
STATION 2

POSITION 48-38.0N, 126- 0.0W GMT 1.7

RESULTS OF STP CAST 39 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	12.88	31.34	0	23.61	429.2	0.0	0.0	1496.
10	11.72	31.81	10	24.19	374.3	0.41	0.02	1493.
20	8.32	32.40	20	25.21	276.8	0.72	0.07	1481.
30	7.94	32.59	30	25.42	257.7	0.99	0.13	1480.
50	7.35	33.16	50	25.95	207.6	1.45	0.32	1479.
75	7.06	33.48	75	26.24	179.9	1.93	0.63	1479.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	12.88	31.34	36.	7.88	32.82
3.	12.88	31.34	40.	7.80	32.94
4.	12.88	31.34	41.	7.78	32.95
6.	12.88	31.58	45.	7.54	33.04
8.	12.15	31.85	49.	7.37	33.15
9.	11.95	31.83	50.	7.35	33.16
10.	11.72	31.81	55.	7.24	33.20
11.	11.31	32.10	56.	7.23	33.20
12.	11.23	32.11	61.	7.10	33.27
13.	10.25	32.17	62.	7.07	33.29
14.	9.37	32.21	65.	7.09	33.33
16.	8.89	32.31	66.	7.10	33.39
18.	8.66	32.37	69.	7.10	33.40
19.	8.37	32.39	71.	7.10	33.43
24.	8.13	32.46	72.	7.09	33.44
25.	8.11	32.47	76.	7.05	33.50
29.	7.96	32.56	78.	7.04	33.52
30.	7.94	32.59	80.	7.03	33.54
33.	7.92	32.72	82.	7.02	33.56
35.	7.90	32.78			



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REFERENCE NO. 77- 4- 69

DATE 23/ 6/77

STATION 1

POSITION 48-33.0N, 125-33.0W GMT 4.1

RESULTS OF STP CAST 46 POINTS TAKEN FROM ANALOG TRACE

PRESS	TEMP	SAL	DEPTH	SIGMA T	SVA	DELTA D	POT. EN	SOUND
0	12.30	31.29	0	23.68	422.4	0.0	0.0	1494.
10	12.28	31.29	10	23.69	422.5	0.42	0.02	1494.
20	10.86	31.41	20	24.03	389.4	0.83	0.08	1489.
30	9.43	31.82	30	24.59	336.6	1.19	0.18	1485.
50	8.41	32.47	50	25.25	273.6	1.81	0.42	1482.
75	7.35	33.24	75	26.01	201.7	2.41	0.80	1479.

DEPTH	TEMP	SAL	DEPTH	TEMP	SAL
0.	12.30	31.29	45.	8.72	32.28
4.	12.29	31.28	47.	8.64	32.37
7.	12.28	31.28	48.	8.55	32.41
10.	12.28	31.29	50.	8.41	32.47
12.	12.28	31.30	51.	8.34	32.52
13.	12.28	31.32	53.	8.24	32.64
14.	12.05	31.33	54.	8.16	32.69
15.	11.31	31.35	56.	8.08	32.73
16.	11.06	31.36	59.	7.94	32.78
19.	10.94	31.40	60.	7.91	32.81
21.	10.78	31.42	65.	7.82	32.86
23.	10.57	31.50	66.	7.79	32.87
24.	10.31	31.58	69.	7.73	32.94
26.	10.12	31.75	70.	7.71	32.98
27.	9.99	31.78	72.	7.58	33.05
29.	9.48	31.79	73.	7.48	33.17
32.	9.32	31.88	76.	7.28	33.28
34.	9.26	31.90	78.	7.20	33.32
36.	9.09	31.96	79.	7.16	33.35
37.	9.05	31.98	83.	7.11	33.37
39.	9.03	32.04	84.	7.09	33.39
40.	9.01	32.07	85.	7.08	33.39
43.	8.81	32.14	86.	7.06	33.40

Surface Salinity and Temperature Observations

(P-77-4)

SURFACE SALINITY AND TEMPERATURE OBSERVATIONS
CRUISE REFERENCE NUMBER 77- 4

DATE/TIME				SALINITY	TEMP	LONGITUDE
YR	MO	DY	GMT	0/00	C	WEST
77	5	6	1650	31.721		123-30
77	5	6	1802	31.546		124- 0
77	5	6	1923	31.243		124-30
77	5	6	2043	30.095		125- 0
77	5	6	2215	31.892	10.5	125-33
77	5	6	2350	31.954	10.1	126- 0
77	5	7	230	32.120	10.0	126-40
77	5	7	620	32.207	9.5	127-40
77	5	7	945	32.386	9.0	128-40
77	5	7	1330	32.477		129-40
77	5	7	1635	32.465	9.2	130-40
77	5	7	2030	32.392		131-40
77	5	7	2340	32.477	9.0	132-40
77	5	8	330	32.448		133-40
77	5	8	610	32.473	8.5	134-40
77	5	8	1030	32.539		135-40
77	5	8	1320	32.568	7.7	136-40
77	5	8	1650	32.574		137-40
77	5	8	1945	32.606	7.3	138-40
77	5	9	115	32.619	7.0	139-40
77	5	9	405	32.667	7.0	140-40
77	5	9	745	32.645	7.0	141-40
77	5	9	1200	32.705	7.0	142-40
77	5	9	1710	32.716	7.0	143-40
77	5	11	0	32.707	6.0	ON STATION
77	5	12	0	32.693	6.0	ON STATION
77	5	13	0	32.706	5.9	ON STATION
77	5	14	0	32.772	5.5	ON STATION
77	5	15	0	32.729	6.0	ON STATION
77	5	16	0	32.723	6.1	ON STATION
77	5	17	0	32.714	6.1	ON STATION
77	5	18	0	32.709	6.2	ON STATION
77	5	19	0	32.696	6.2	ON STATION
77	5	20	0	32.687	6.4	ON STATION
77	5	21	0	32.717	6.2	ON STATION
77	5	22	0	32.690	6.4	ON STATION
77	5	23	0	32.697	6.3	ON STATION
77	5	24	0	32.787	5.9	ON STATION
77	5	25	0	32.755	6.9	ON STATION
77	5	26	0	32.694	6.3	ON STATION
77	5	27	0	32.745	6.3	ON STATION
77	5	28	0	32.697	6.5	ON STATION
77	5	29	0	32.712	7.0	ON STATION
77	5	30	0	32.702	7.6	ON STATION

SURFACE SALINITY AND TEMPERATURE OBSERVATIONS
CRUISE REFERENCE NUMBER 77- 4

DATE/TIME				SALINITY	TEMP	LONGITUDE
YR	MO	DY	GMT	0/00	C	WEST
77	5	31	0	32.702	8.5	ON STATION
77	5	1	0	32.730	7.5	ON STATION
77	6	2	0	32.726	7.5	ON STATION
77	6	3	0	32.721	8.4	ON STATION
77	6	4	0	32.745	8.3	ON STATION
77	6	5	0	32.754	7.4	ON STATION
77	6	6	0	32.726	7.4	ON STATION
77	6	7	0	32.723	7.7	ON STATION
77	6	8	0	32.734	8.0	ON STATION
77	6	9	0	32.718	8.3	ON STATION
77	6	10	0	32.694	8.4	ON STATION
77	6	11	0	32.718	8.2	ON STATION
77	6	12	0	32.693	8.2	ON STATION
77	6	13	0	32.673	8.3	ON STATION
77	6	14	0	32.657	8.7	ON STATION
77	6	15	0	32.667	8.5	ON STATION
77	6	16	0	32.671	8.2	ON STATION
77	6	17	0	32.700	8.5	ON STATION
77	6	18	0	32.672	8.4	ON STATION
77	6	19	0	32.669	8.7	ON STATION
77	6	20	205	32.635		143-40
77	6	20	710	32.639	9.4	142-40
77	6	20	1135	32.636		141-40
77	6	20	1510	32.631	9.6	140-40
77	6	20	1900	32.618		139-40
77	6	20	2235	32.567	10.5	138-40
77	6	21	345	32.532		137-40
77	6	21	705	32.540	10.5	136-40
77	6	21	1035	32.450		135-40
77	6	21	1415	32.377	10.9	134-40
77	6	21	1800	32.380		133-40
77	6	21	2110	32.462	11.3	132-40
77	6	22	0	32.474	12.5	131-40
77	6	22	310	32.506	11.4	130-40
77	6	22	735	32.495		129-40
77	6	22	1210	31.993	12.1	128-40
77	6	22	1700	32.235	11.9	127-40
77	6	22	2230	31.846	12.1	126-40
77	6	23	140	31.305	12.6	126- 0
77	6	23	405	31.233	12.3	125-33
77	6	23	640	31.534		125- 0
77	6	23	910	31.459		124-30
77	6	23	1105	31.473		124- 0
77	6	23	1330	31.193		123-30

b DENOTES SALINITY SAMPLE TAKEN FROM A
BUCKET. ALL OTHER SAMPLES TAKEN FROM
THE SEAWATER LOOP

LIST OF OMISSIONS FROM DATA

Hydrographic Data:

Consec. #	Depth (m)	Temp.	Sal.	O ₂	Notes			Comments
					1.	2.	3.	
11	797		*			*		Temp.suspect Temp. too low Temp.suspect
24	234		*			*		
	234			*		*		
26	114	*			*			
39	100	*				*		
	125	*			*			
	4194		*		*			
	4194			*		*		

Notes (MacNeill, 1977)

1. The data is suspect because of reversal of gradient by $>.01$ ‰ (salinity) or $>.08$ ml/l (oxygen).
2. The data is deleted because of very irregular data values (usually a mis-tripping or leaking bottle if both oxygen and salinity are irregular).
3. The data is deleted because duplicate samples at a depth were not within $.01$ ‰ (salinity) or $.08$ ml/l (oxygen).

STD Data:

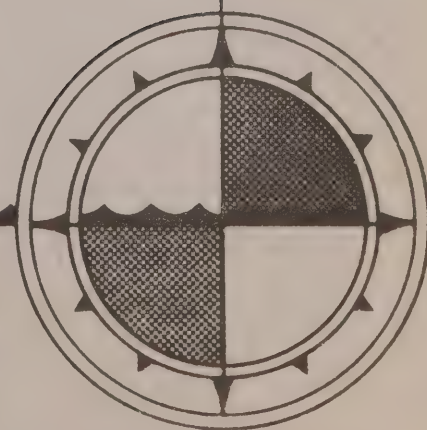
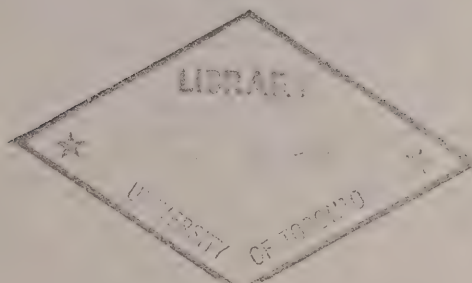
Consecutive #	Comments
28	Deep cast omitted; cast starts at 230 m not 300 m
36	Omitted; temperature trace too erratic

CAI
EP 321
- 77R19

A LORAN-C CALIBRATION, THE WEST CANADIAN CHAIN LATTICING AND GUIDANCE SYSTEMS FOR INSHORE OPERATIONS

by

A. Mortimer and R. Schoenrank



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LATTICING AND GUIDANCE SYSTEMS FOR INSHORE OPERATIONS

by

A. Mortimer and R. Schoenrank

Institute of Ocean Sciences, Patricia Bay
Sidney, B.C.

November 1977

This is a manuscript which has received only limited circulation. On citing this report in a bibliography, the title should be followed by the words "UNPUBLISHED MANUSCRIPT" which is in accordance with accepted bibliographic custom.

ABSTRACT

This report describes some Loran-C calibration measurements made in Caamano Sound and Douglas Channel on the northern British Columbia coast. Empirical models for accurate chart latticing were made. Some alternatives for a third guidance option are discussed since the Loran-C system has weaknesses when used inshore.

INTRODUCTION

Increases in tanker traffic on the British Columbia coast have generated a need for more accurate positioning, partly fulfilled by the introduction of Loran-C. The Loran-C system is designed to provide positioning information within the coastal confluence zone with an accuracy better than ± 500 metres (m)¹. The coastal confluence zone extends to about 100 kilometres (km) offshore or to the edge of the continental shelf.

Loran-C coverage of the B.C. coast is provided by the West Canadian Chain with the master transmitter at Williams Lake, the X secondary at Shoal Cove, Alaska and the Y secondary at Moses Lake, Washington (Figure 1). The Williams Lake transmitter is operated by the Canadian Coast Guard using equipment supplied by the United States Coast Guard (USCG) who operate the secondary stations of this chain. The West Canadian coverage is linked in the south to the Western U.S. Chain and in the north to the Gulf of Alaska Chain.

The charting calibration of the West Canadian Chain was done in March and April, 1977. During this operation low signal strengths from the distant secondary transmitters were observed at the entrance to Juan de Fuca Strait and Dixon Entrance.

The principal object of the Canadian Hydrographic Service (CHS) calibration was to provide information on spatial propagation effects, so that charts of scales 1:150,000 or smaller might be accurately latticed. Changes in the Additional Secondary Factor (ASF) due to differences in conductivity from the conductivity used in the predictive model were measured by comparison of Loran-C ranges and doppler satellite positions. The resulting ASF's will be applied as small constant corrections to the emission delays used in latticing each chart.

The problem of latticing inshore charts at scales as large as 1:50,000 is complicated by the effects of the abrupt conductivity change at the coastline. Three methods of modelling the effects of such changes for inshore charting can be considered.

1. The empirical method.
2. The computed ASF model, using a fitted correction surface for each lattice derived from a computed ASF model or map.
3. Direct (on line) computation of ASF, from a simple conductivity model or map for the major plotting points of a lattice.

The latter two methods are very similar; both call for the production of conductivity or ASF models for the chain coverage area.

Although the problem of transforming Loran-C time differences (TD's), whether for chart latticing or other purposes, is important, it is a futile pursuit if reception of the Loran-C signal is not reliable. The reception of Loran-C in inshore areas is a function of several variables. Distance along, and the conductivity of, the path from receiver to transmitter is of major importance in attenuating a Loran-C transmission. Pulse shape as well as pulse amplitude are affected by attenuation. Abrupt conductivity changes at the coastline produce phase lag changes. The results of early segments of the CHS calibration indicated that additional measurements should be made in the fiords of the B.C. coast if Loran-C was to be evaluated as a guidance option for port approaches.

The potential for Loran-C for this purpose is limited at present by the predictability of the system. Predictability, the ability to determine the position independent of the receiver or coordinate system used, is dependent on knowledge of spatial and temporal propagation effects. Repeatability for a Loran-C position line using the hyperbolic mode is ± 50 m depending on the signal-to-noise ratio and the receiver used.

As part of the charting calibration of the West Canadian Chain, the CHS conducted an investigation designed to examine the usefulness of Loran-C for positioning in British Columbia's fiords and their approaches.

MEASUREMENTS

In Caamano Sound in July 1977 precise positioning was available, so this area was chosen for calibration measurements. Measurements for noise and field strength of the Loran-C signal were made in Douglas Channel. The Loran-C receiving equipment in C.S.S. Pandora II (Capt. R. Jones) is listed below:

- 1 Austron 5000 Monitor Receiver;
- 1 PDP 8e computer;
- 1 H.P. 5062C cesium frequency standard;
- 1 Silent 700 data terminal;
- 1 Internav LC 204 receiver; and,
- 1 HP 9825 Calculator.

The Austron 5000 Loran-C receiver was lent to the CHS by the USCG. This receiver gives receiver gain information that can be translated into field strength. It also yields a noise number, derived from pulse time of arrival (T.O.A.) variations. This number can be related to ambient noise. The tracking point relative to the envelope is measured, as well as T.O.A.'s and T.D.'s. The basis for the calibration comparisons was positions defined by the Motorola Range Positioning system, with transponders deployed at the entrance to Caamano Sound (Figure 2). Errors in these positions were not expected to exceed ± 15 m.

As an uninterruptable power supply was not available to ensure continuous synchronization, the T.O.A. measurements cannot be related to absolute propagation time or range measurements. These T.O.A. measurements provide

information locally about relative changes in the A.S.F. for each transmission path. Simultaneous comparison positions were obtained as the Pandora II was run along courses radial to the three transmitter stations (Figure 2).

TOPOGRAPHY

The Douglas Channel and Caamano Sound areas are about 500 km from the master transmitter, 300 km from the X secondary and about 1000 km from the Y secondary. The propagation path from Williams Lake (master) to this part of the northern B.C. Coast is rugged. Near the transmitter the path runs across the basaltic Chilcotin Plateau. The second part of the propagation path crosses the dioritic Coast Mountains with changes of elevation of over 2000 m. The transmission from Moses Lake has the longest path, for the most part over the Coast Mountains, with changes in elevation of up to 3000 m (Figure 3).

In the immediate vicinity of Douglas and Principe Channels the hills at the coast rise to 300 m and inland to 700 m, with a few small glaciers west of Kitimat. The channels are wider and the overall relief is generally less dramatic than that found in many other areas of the B.C. coast.

SIGNAL CHARACTERISTICS

The Pandora II made a passage up Douglas Channel from Wright Sound and back to Caamano Sound between midnight and noon local time (P.D.T. Z + 7h). Before midnight, in narrow Princess Royal Channel neither the monitor receiver nor the commercial receiver produced satisfactory results. In Wright Sound both receivers acquired the Loran-C signal from all three transmitters of the West Canadian Chain. During the hours of darkness, in Douglas Channel, the commercial receiver generally acquired skywave signals from the Y secondary. The warning lights on the receiver did not indicate skywave. When the commercial receiver was put on to the correct T.D.'s it failed to track the Y pattern satisfactorily.

The monitor receiver showed a large skywave from the Y secondary 1000 km to the south, preceded by a minute groundwave. It was remarkable that this receiver managed to track this groundwave so faithfully and produce correct T.D.'s. After sunrise the commercial receiver acquired and tracked all three transmissions correctly.

The field strengths and noise measurements for Douglas Channel and Caamano Sound are shown in Figures 4, 5 and 6 for all three transmissions. The cycle numbers are shown on Figure 7. The field strengths for the Y transmitter are predictably low and inadequate for reliable use. The noise levels are generally low. Cycle numbers, which bear a relationship to envelope to cycle difference (E.C.D.) vary from 2.73 to 3.33 for the reception of the Y secondary in Douglas Channel (Figure 7). Whether this variation is due to the weak signal strength or to other (topographic) effects is not known. In Caamano Sound, field strengths tend to be rather higher than in the fiords, markedly so for the Shoal Cove transmission.

CALIBRATION

The Pandora II was navigated up the middle of Douglas Channel using radar for positioning. Loran-C fixes in the channel plot consistently about 600 m south and west of the ship's track. The algorithm used to derive Latitude and Longitude for plotting assumed an all-seawater propagation path from the transmitters. Variances in these comparisons can be attributed as much to the radar fixes as to Loran-C errors. However these informal tests did demonstrate that consistent Loran-C fixes could be obtained in Douglas Channel.

The more accurate calibration for empirical lattice modelling was made at the entrance to Caamano Sound. The calibration defined local changes in Loran-C pulse T.O.A.'s relative to an arbitrary origin. At this origin the difference between the observed Loran-C position and the accurate calibration position was set to zero. These local changes in T.O.A. may be attributed to localized phase lag changes, short term temporal changes, random errors in Loran-C measurements and random errors in accurate position measurements. The observed changes from Lines A, B and C (See Figure 2) have been plotted in Figures 8, 9 and 10. The computed local changes have also been plotted on the same graphs. The computation includes a secondary phase correction using the Bedford Institute of Oceanography (B.I.O.) linear model, assuming an all seawater path to the transmitters, where: -

$$\text{Travel Time } (T_C) = C_1 T^2 + C_2 T + C_3 + T_0$$

in which T_0 (μsec) is observed travel time,

T_C is corrected travel time,

and $C_1 = 0.793\ 827 * 10^{-8}$

$C_2 = 0.909\ 076 * 10^{-3}$

$C_3 = -0.207$

are constants.

Differences between the observed changes in T.O.A. and the predicted changes are quite large ($0.2\ \mu\text{sec}$). In the case of the Master and Y secondary, the changes have a different sign, i.e. whilst predicted phase lag increases, observed phase lag decreases.

Calibration lines were also run inside Caamano Sound. Owing to equipment problems these were not completed. Figures 11 and 12 show the local changes in phase lag for propagation from the Master and X transmitters respectively. These are lines D and E in Figure 2. Phase lags from the Master show no major perturbations. Phase lags from the X secondary display nicely the phase lag recovery effect as the ship moved away from shore.

Deviations from low order models of these local changes in phase lag appear to be about $\pm 0.08\ \mu\text{sec}$ in both areas of Caamano Sound calibrated. This error term includes short term temporal changes, but these deviations would be decreased by the use of a local monitor. Excluding the temporal changes from the T.O.A.'s it appears that a model can be made based on these calibrations. This model would allow accurate hyperbolic

latticing. Errors (65% confidence interval) for the predicted hyperbolae, in this small area off Caamano Sound, are unlikely to exceed ± 35 m for TD-X and ± 120 m for TD-Y.

MODELS

1. EMPIRICAL

When the effects of conductivity are modelled empirically, the Loran-C predictions are forced to fit the observations over a small region.

In Caamano Sound the calculated pattern readings, the observed pattern readings and the differences between calculated and observed were tabulated (Table 1).

If the calculated values were corrected by the mean of the differences for each pattern, the expected error in the X pattern is $0.17 \mu\text{sec}$ and the expected error in the Y pattern is $0.22 \mu\text{sec}$. These errors are not significantly smaller than the predicted Loran-C system errors computed for Caamano Sound ($0.12 \mu\text{sec}$ in the X pattern and $0.39 \mu\text{sec}$ in the Y pattern).

To correct the calculated values to agree with the observed values a function of the differences had to be found such that

$$T_{xc} - T_{xo} = f(T_{xo}, T_{yo})$$

$$\text{and } T_{xc} - T_{yo} = f(T_{xo}, T_{yo}).$$

To find these functions a stepwise forward regression analysis was done and the final form of both functions was

$$T_{xc} - T_{xo} = b_0 + b_1 T_{xo} + b_2 T_{yo}$$

$$T_{yc} - T_{yo} = b_0 + b_1 T_{xo} + b_2 T_{yo}.$$

The coefficients and the analysis of variance are given in Tables 2 and 3.

The expected error of the predicted values is $0.09 \mu\text{sec}$ in the X pattern and $0.15 \mu\text{sec}$ in the Y pattern when the calculated values are corrected by the functions (model) found above.

In summary, the expected error in position for Caamano Sound is:

	X pattern	Y pattern
System Error	$0.12 \mu\text{sec}$	$0.39 \mu\text{sec}$
Uncorrected Calculations	$4.22 \mu\text{sec}$	$0.56 \mu\text{sec}$
Constant Correction	$0.17 \mu\text{sec}$	$0.22 \mu\text{sec}$
Model Corrections	$0.09 \mu\text{sec}$	$0.15 \mu\text{sec}$

It should be noted that the expected error for the model is less than the system error and any further attempts to model for greater accuracy will be frustrated by the randomness of the system.

2. ASF MODEL

In modelling the computed ASF, the conductivities on the propagation path must be known (i.e. a conductivity map). Then for each point in the area under study the ASF factor must be computed to each Loran transmitter as a line integral along the propagation path.

This technique must be done from the transmitter to the point and from point to transmitter and the results must be iterated until the ASF factor is identical for that propagation path in both directions.

This is what is required for both modelling the ASF factor and direct (on-line) computations of the ASF factor.

When the ASF factor for each transmitter is known at a number of points in the area under study, then a stepwise regression is carried out and a model ASF surface is fitted for each transmitter. Using these 3 surfaces two time difference correction surfaces can be derived for latticing.

The advantage of this technique is that no calibration of the area is required if the conductivities of the propagation path are known *a priori*.

The corrected lattice produced by this technique should be identical to the lattice produced by method 1.

3. ON-LINE MODEL

On-line or direct computation of ASF from a conductivity map would be the initial step of method 2 and would require a number of fairly intricate computations. These computations would be sufficiently difficult to slow down the lattice plotting program or position fixing program and would provide no advantage over the simple corrections resulting from methods 1 or 2.

THIRD GUIDANCE OPTION

The jargon used in the section heading presupposes two other guidance methods. These methods depend on vision and radar as sensors. Loran-C is an obvious third choice as a sensor for positioning ships at the approaches to B.C. ports.

It has been demonstrated that the West Canadian Chain does not provide adequate coverage in Dixon Entrance or in Juan de Fuca and Georgia Straits.² Also, the calibration in Caamano Sound showed that even if predictive models were made to fit local conditions the increase in accuracy would not surmount the inaccuracies caused by mediocre line of position geometry. In Douglas Channel signal strengths from the Y secondary are, at times, insufficient to allow reliable third cycle identification or tracking by a commercial receiver. The problems described above might be solved if a third secondary transmitter were to be established on northern Vancouver Island. However, temporal variations in the pattern would be a

problem, as the coverage for the coast would still be controlled using observations at one monitor station. Temporal changes at the monitor site, one hundred and fifty kilometres away at Alert Bay will not reflect changes accurately enough for precise inshore navigation in Douglas Channel.

Although the main Loran-C Chain may not be useful in the fiords, it may be possible to provide positioning using a mini-Loran-C Chain (Accufix) to cover a smaller area. Experience exists in Canada, both in the Canadian Coast Guard, the CHS and in private industry in the use of mini-Loran-C Chains. The use of the Loran-C format for inshore positioning has the advantage that ordinary commercial receivers can be used. It is to be hoped all ships using B.C. ports will be fitted with Loran-C receivers. Most commercial receivers have a resolution of 0.1 μ sec. This limitation restrains the potential accuracy of positioning from a mini-Loran-C Chain to ± 30 metres (See Figure 13). From the traffic management viewpoint, Loran-C coordinates can be automatically retransmitted to the control centre by V.H.F. link. As the chain is dedicated to cover only a small area, a well placed monitor receiver can effectively remove most temporal variations in the T.D.'s. The St. Mary's River Chain, covering the passage between Lake Superior and the Lower Lakes, is controlled to within 0.015 μ sec.³ It is hoped that the St. Mary's River Chain will yield accuracies of better than ± 20 m but special receiver equipment, data filtering and real time grid calibration are required to reach this low limit.⁴

Disadvantages exist in using a mini-Loran-C to provide precise positioning in archipelagos and in fiords. There are large and frequent changes in surface conductivity along the line of propagation. The phase lags inherent in these conductivity changes cannot be corrected with sufficient accuracy by applying a constant calibration correction to the emission delays at each secondary transmitter. Phase lags can be predicted over lines 200 km in length with an accuracy of 1:10,000 (of length of line).⁵ However, this sort of accuracy was achieved over uniform salt water paths. Predictions over more complicated paths have not been as successful. So to obtain accuracies of about ± 30 m from a mini-Loran-C chain operating over islands and narrow inshore passages a detailed calibration would be required. Phase lags for the hypothetical chain shown in Figure 13 are estimated for X transmission to range from 0.58 to 1.48 μ secs.

Transmitter site selection poses another problem in rugged, densely wooded terrain. Considerable clearing would be needed, even if flat, dry land was to be found. Large clear transmitter sites are required if 100 m antenna towers are used.⁶ Relatively powerful transmitters may be required if reliable operation is to be obtained in the rugged terrain where excessive signal attenuation and pulse distortion will be problems (see Figure 14). In any case, sufficient transmitted power must be available in all coverage areas to ensure 100% pulse tracking reliability and 99% cycle identification reliability. The selection of a rate (group repetition interval, (G.R.I.) for a mini-chain is difficult. Cross rate interference has to be minimized. The rate selected can be low, but the West Canadian Chain has a relatively low rate. Cross rate interference from mini-Loran-C chains would also be decreased if the West Canadian Chain were to be given an increased rate. The rate of the West Canadian Chain could be increased to allow for new secondaries to be deployed. The two new secondaries

would be sited on north Vancouver Island and, as originally planned, in the interior to provide extended coverage in the northern states, and in Alberta and B.C.

Other medium range positioning systems such as Hi-fix have been applied to port approach operations.⁷ They can in some cases provide greater accuracy than a mini-Loran-C chain but require special receivers. Also these systems suffer from the same environmental weaknesses as Loran-C.

Position accuracy requirements for port approaches can be defined by several variables. Traffic density, channel width, radius of turns in the channel, size and handling characteristics of the ship can be included in the definition.⁸ The Termpol Assessment of the Kitimat, B.C. Marine Oil Terminal Proposal has found that turns in the channels are acceptable within the Termpol code for tanker traffic. Speeds relative to various channel widths have been recommended. The effect of a positioning error of ± 30 m, on a decision as to when to start a turning manoeuvre is small in comparison with other unknowns, currents and wind, that will be met with during the turn. Velocities derived from positions in error by ± 30 m could be stated with confidence if measured over distances exceeding 2000 m. Traffic density in the area is low. Equivalent position discrimination is given by a radar with 0.5° horizontal total beam width, a range of 24 kms and by two electronic positioning receivers with an accuracy of ± 50 m.

If positioning with accuracies better than ± 20 m is required then short range systems can be applied to solve the problem.⁹ This type of positioning system is used widely in hydrography and resource exploration. Most of these systems operate at microwave frequencies and are limited to line of sight use. They define position by the intersection of two ranges from small transponders, placed ashore. A transceiver and display unit is required on the ship. The physiography of B.C. inshore waters does not lend itself to range/range microwave positioning. To provide coverage in Principe Channel, Caamano Sound and Douglas Channel many transponder sites would be needed. It is estimated, from hydrographic sonar sweep work in 1977, that approximately 30 individual chains would be necessary.

However, more economical and accurate positions can be obtained from a range bearing geometry. This geometric configuration is well suited to the fiords and channels of the B.C. Coast. Artemis is one of the new available range/bearing positioning systems. It provides great accuracy, ± 1.5 m in range and ± 2 minutes in arc.⁶ This system has been used by the Swedish Hydrographic Office, but has not been applied to commercial ship guidance.⁷ At a range of 18 km it will give a position accurate to ± 12 m. The system has a maximum range of 30 km. To cover Principe Channel, Caamano Sound and Douglas Channel about 10 shore transmitters would be required. Although this system is expensive (\$100,000 for one chain) it is very accurate and could be used as control for docking operations. Disadvantages of Artemis for ship guidance are: mechanical tracking antennae; high cost; lack of North American operational experience; 5 minute warm-up time when changing from one shore transmitter to another; and, possible interference from other transponders in overlapping coverage areas or interference from radar.

In the future integrated systems will be available for inshore ship guidance. Match-Nav is under development for the U.S. Navy.¹⁰ It is a radar based system, featuring the display of a digitized chart on a Plan Position Indicator together with radar sensed data. Loran-C positioning may be integrated into this system. This system matches chart outlines to radar sensed coastlines, etc. The CHS may soon find a potential market for digitized data.

Another positioning system is being considered by the Saint Lawrence Seaway Development Operations at Messina, New York.¹¹ Precise Radar Aid to Navigation System (PRANS) operates in the X-band using a dedicated radar and small computer. The computer is used for coordinate transformation and to produce velocity, distance to way-point and course line offset information.

CONCLUSIONS

1. Empirically based algorithms can be produced that allow Loran-C coordinate transformation within accuracies inherent in the Loran-C system. This transformation allows the use of Loran-C inshore where the system has been calibrated. These algorithms can be applied to chart latticing, and include spatial propagation effects.
2. To aid the mariner in verifying the correctness of Loran-C cycle identification, lattices should be drawn into the charted coastline.
3. Present Loran-C coverage is inadequate in Dixon Entrance. The West Canadian Chain is not reliable in this area, and the Gulf of Alaska master transmission has been observed to have a very weak ground wave. As presently configured, the West Canadian Loran-C Chain does not provide adequate coverage to the Triple Island pilot station, although it is adequate offshore at the approaches to Cape St. James and in Hecate Strait. Cycle selection capabilities are not as good as those given by the east coast chain.² This capability may improve marginally if the pulse shapes are changed when the chain is commissioned.
4. The main West Canadian Loran-C Chain cannot be considered as a third guidance option for positioning in the fiords and among the islands along the coast. A mini-Loran-C Chain could provide positioning for port approaches with an accuracy of ± 30 m. Mini-Loran-C transmissions can be used by commercial receivers if either; 1) the mini-chain's rate is set to a standard GRI or 2) the receivers have digital (not coded) rate selection.
5. Accuracies of ± 50 m are probably sufficient for the third guidance option. If better accuracies are required a wide selection of positioning systems is available. All require special receivers that must be either brought on board by the pilot or put in a ship dedicated to the route where the system is used.

Calculated and Observed Time Differences

Time.Day	Calculated		Observed		Calc - Obs	
	X	Y	X	Y	X	Y
1940.183	12761.269	30423.120	12757.260	30422.370	4.009	0.750
1946.183	12750.612	30422.543	12746.230	30421.780	4.382	0.763
1950.183	12743.435	30422.186	12739.050	30421.440	4.385	0.746
2000.183	12725.341	30421.085	12720.950	30420.320	4.391	0.765
2008.183	12711.383	30420.147	12707.090	30419.320	4.293	0.827
2024.183	12684.706	30418.111	12680.420	30417.320	4.286	0.791
2028.183	12678.384	30417.459	12674.060	30416.630	4.324	0.829
2030.183	12675.214	30417.126	12670.960	30416.330	4.254	0.796
2032.183	12672.048	30416.776	12667.690	30415.940	4.358	0.836
2034.183	12668.852	30416.443	12664.500	30415.620	4.352	0.823
2038.183	12662.432	30415.756	12658.070	30414.920	4.362	0.836
2042.183	12655.994	30415.066	12651.600	30414.190	4.394	0.876
2048.183	12645.446	30417.232	12641.080	30416.370	4.366	0.862
2050.183	12641.838	30418.225	12637.450	30417.360	4.388	0.865
2054.183	12634.574	30420.219	12630.270	30419.420	4.304	0.799
2056.183	12630.941	30421.210	12626.600	30420.360	4.341	0.850
2058.183	12627.297	30422.200	12622.970	30421.400	4.327	0.800

Table 1.

Calculated and Observed Time Differences

Time Day	Calculated		Observed		Calc - Obs	
	X	Y	X	Y	X	Y
120.184	12643.248	30447.028	12639.280	30446.670	3.968	0.358
124.184	12650.012	30447.794	12645.960	30447.730	4.052	0.064
126.184	12653.298	30448.175	12649.310	30447.840	3.988	0.335
128.184	12656.639	30448.557	12652.685	30448.235	3.954	0.322
132.184	12663.537	30449.314	12659.520	30449.000	4.017	0.314
134.184	12667.023	30449.656	12663.050	30449.340	3.973	0.316
136.184	12670.808	30450.078	12666.610	30449.750	4.198	0.328
140.184	12677.774	30450.722	12673.670	30450.340	4.104	0.382
142.184	12681.239	30451.009	12677.230	30450.630	4.009	0.379
144.184	12684.735	30451.278	12680.710	30450.860	4.025	0.418
146.184	12688.326	30451.528	12684.330	30451.200	3.996	0.328
152.184	12698.880	30452.306	12694.870	30451.950	4.010	0.356
154.184	12702.269	30452.547	12698.360	30452.210	3.909	0.337
156.184	12705.842	30452.807	12701.790	30452.450	4.052	0.357
158.184	12709.395	30453.060	12705.290	30452.680	4.105	0.380
200.184	12712.959	30453.284	12708.790	30452.910	4.169	0.374
202.184	12716.492	30453.560	12712.250	30453.130	4.242	0.430
204.184	12719.851	30453.796	12715.700	30453.390	4.151	0.406
206.184	12723.508	30454.037	12719.170	30453.600	4.338	0.437
208.184	12727.052	30454.283	12722.710	30453.830	4.342	0.453
210.184	12730.763	30454.564	12726.280	30454.060	4.483	0.504
212.184	12734.202	30454.824	12729.750	30454.310	4.452	0.514
214.184	12737.606	30455.119	12733.250	30454.660	4.356	0.459
216.184	12741.193	30455.427	12736.770	30454.930	4.423	0.497
218.184	12744.876	30455.766	12740.370	30455.250	4.506	0.516
220.184	12748.348	30456.084	12744.020	30455.560	4.328	0.524

Table 1. (Continued).

MULTIPLE LINEAR REGRESSION

The model is $Y = B_0 + B_1(X_1) + B_2(X_2) + \dots + B_{10}(X_{10}) [(X_2)^2]$
 No. of Model parameters (Bi) = 3.000

Means: $X_1 \dots X_k, Y$
 12687.85988 30438.54895 4.22479

Variances
 1413.00500 281.06190 0.03043

Correlation Matrix
 1.00000 0.36125 0.24091
 0.36125 1.00000 -0.39692

Coefficients $A_1 \dots A_k$
 0.44198 -0.55659

Coefficients $B_0 \dots B_k$
 154.48203 0.00205 -0.00579

ANOVA			DF	MS
Total	SS		43.000	
Mean	768.780		1.000	
Corrected	767.502		42.000	
Regression	1.278		2.000	0.475
Residual	0.951		40.000	0.008
Multiple Correlation	0.86245			
F Ratio	58.073			

Table 2. Caamano Sound Pattern 1.

MULTIPLE LINEAR REGRESSION
 The model is $Y=B_0+B_1(X_1)+B_2(X_2)+\dots+B_{10}(X_1)[(X_2)^2]$
 No. of Model parameters (Bi)= 3.000

Means: $X_1\dots X_k, Y$
 12687.85988 30438.54895 0.55584

Variances
 1413.00500 281.06190 0.05016

Correlation Matrix
 1.00000 0.36125 -0.12371
 0.36125 1.00000 -0.90456

Coefficients $A_1\dots A_k$
 0.23354 -0.98893

Coefficients $B_0\dots B_k$
 385.02022 0.00139 -0.01321

ANOVA			DF	MS
Total	SS		43.000	
Mean	15.392		1.000	
Corrected	13.285		42.000	
Regression	2.107		2.000	0.620
Residual	1.241		40.000	0.022
	0.866			
Multiple Correlation	0.76751			
F Ratic	28.671			

Table 3. Caamano Sound Pattern 2.

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11. Local Changes in Phase Lag - Master (Inside).
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13. Hypothetical Mini-Loran-C Chain.
14. Mini-Loran-C Chain: Range and Transmitted Peak Power.



WEST CANADIAN LORAN - C CHAIN

Figure 1



Figure 2

Figure 3 TOPOGRAPHY

2500' Contour

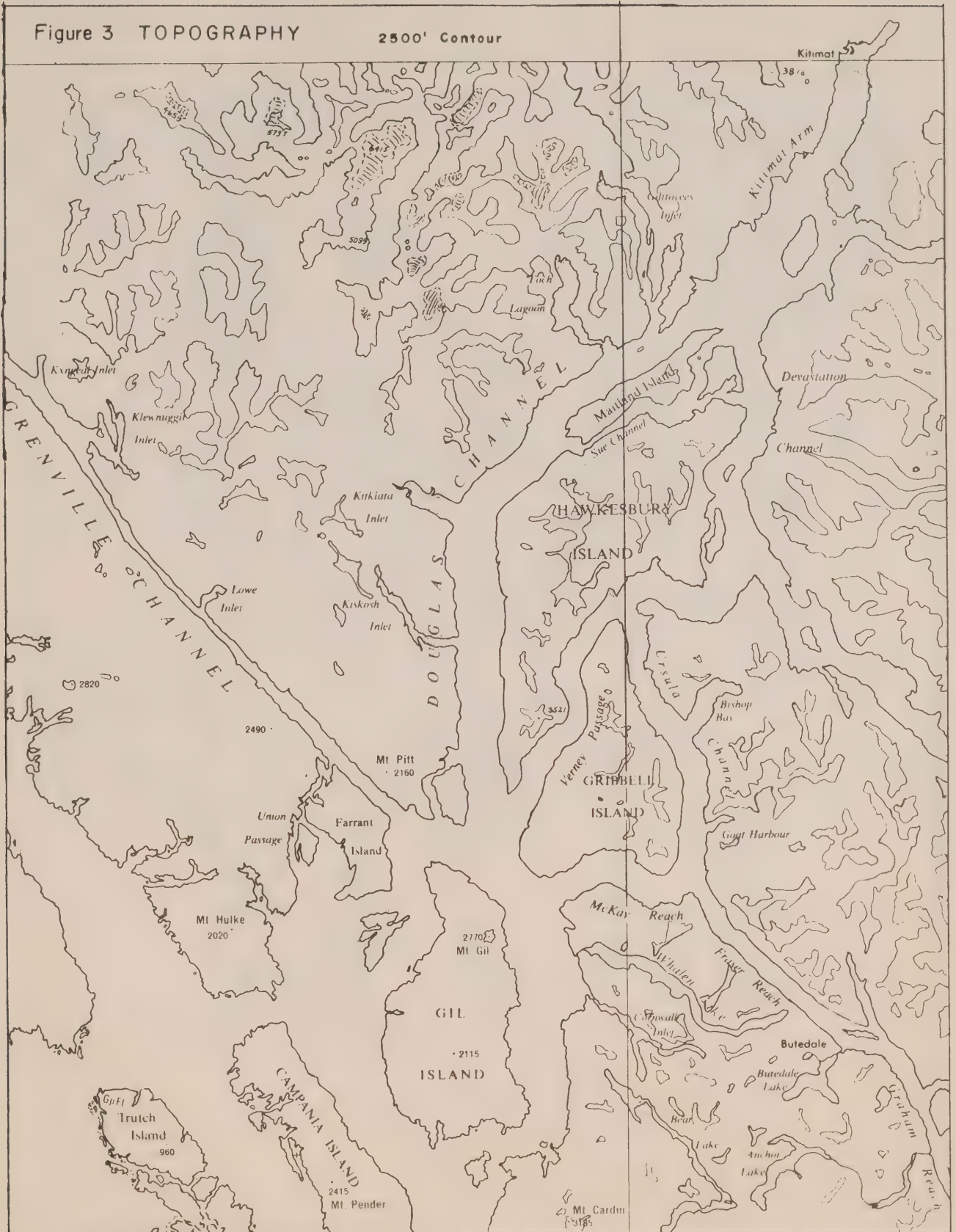




Figure 4



Figure 5



Figure 6



Figure 7

LOCAL CHANGES IN PHASE LAG MASTER CAAMANO SOUND (Outside)

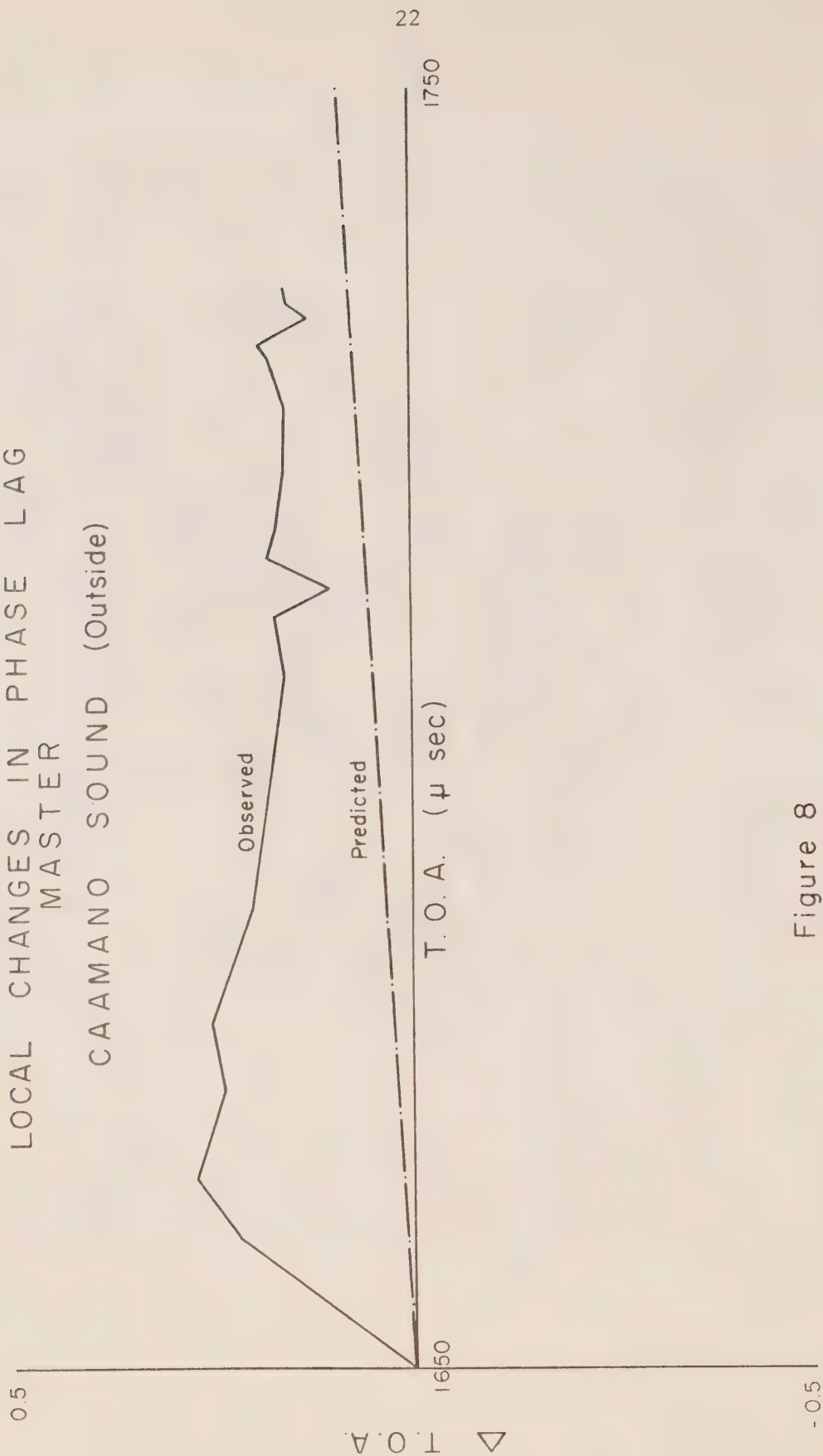


Figure 8

LOCAL CHANGES IN PHASE LAG
X SECONDARY
CA AMANO SOUND (Outside)

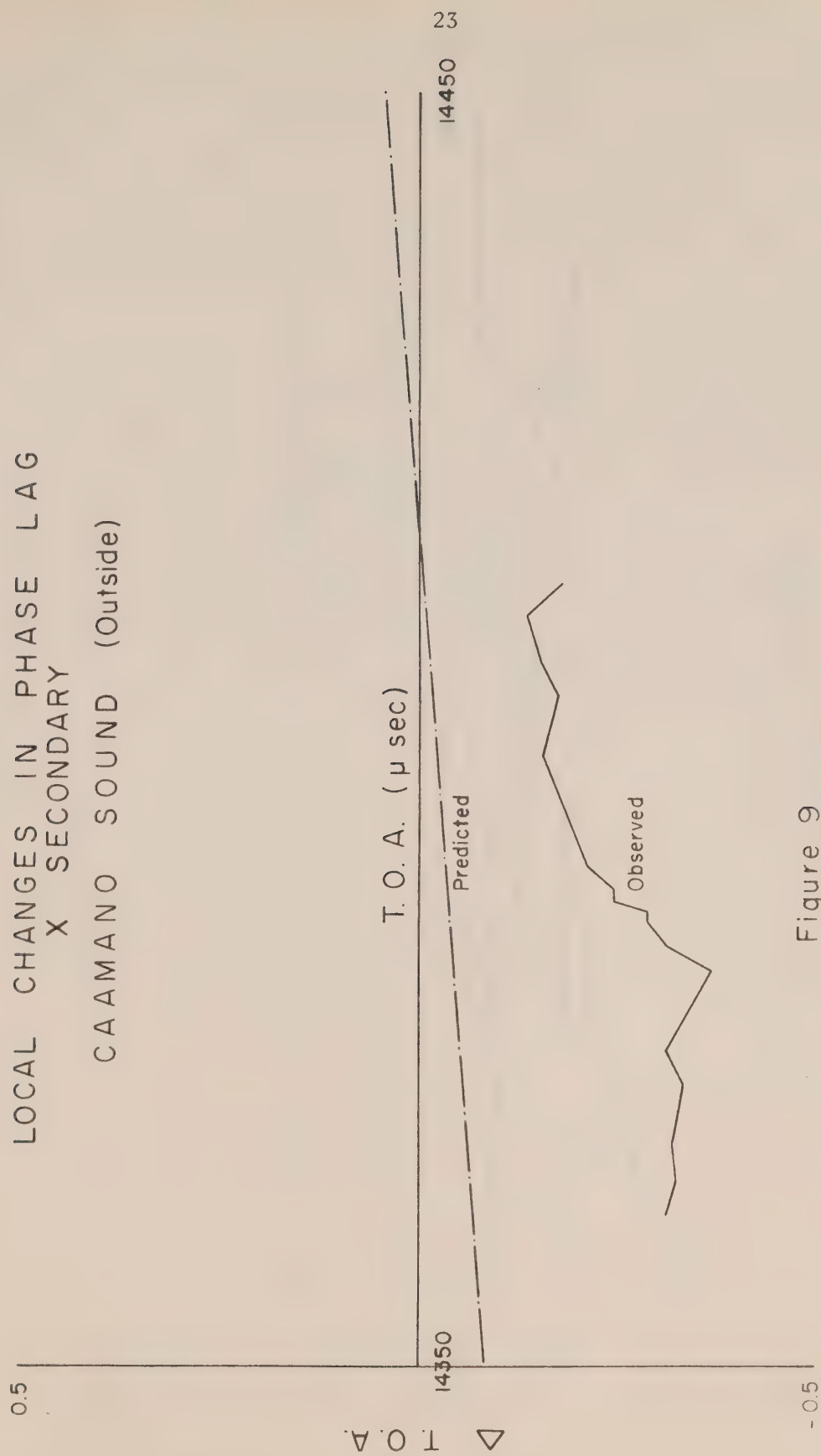


Figure 9

LOCAL CHANGES IN PHASE LAG Y SECONDARY CAAMANO SOUND (Outside)

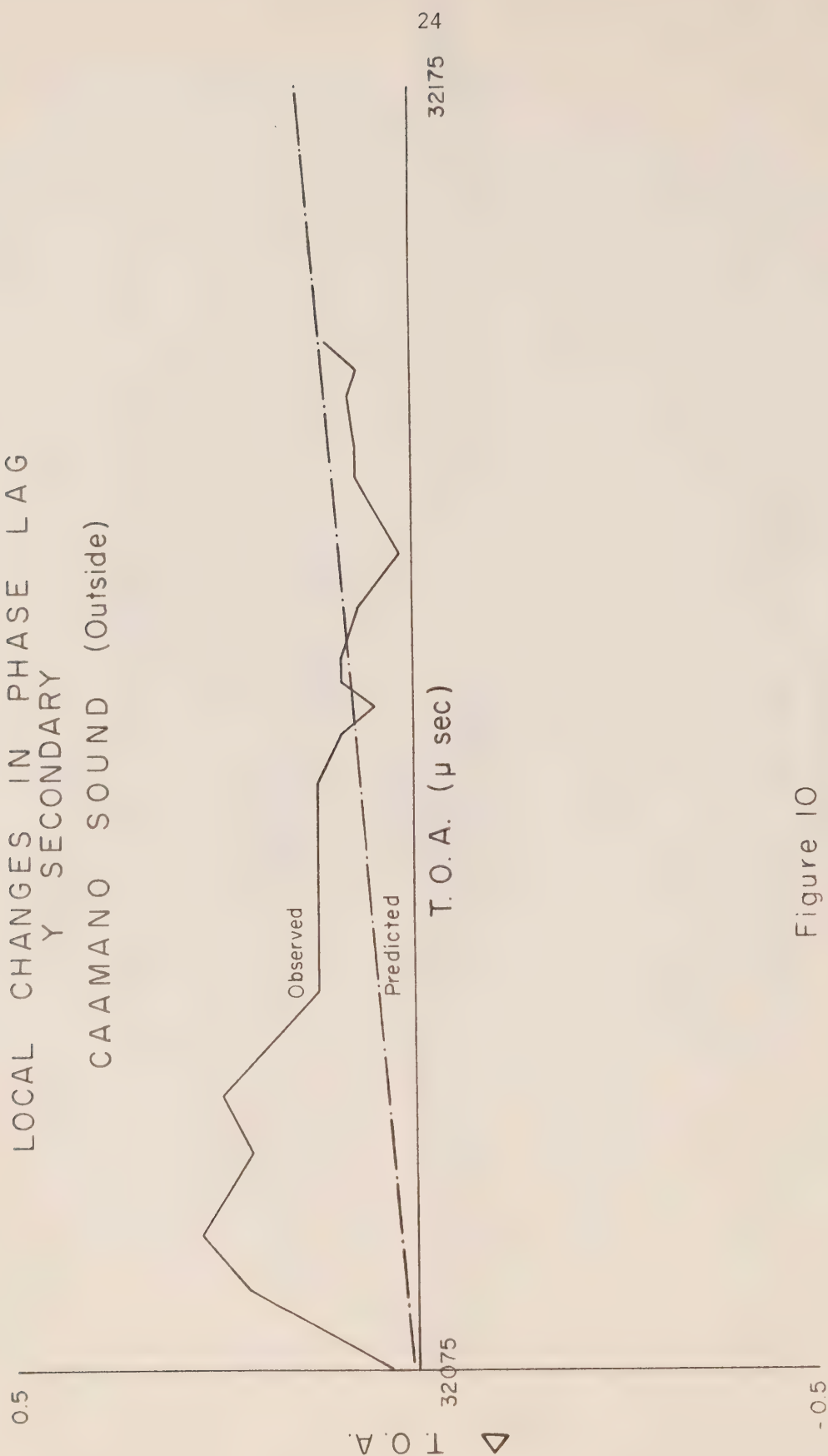


Figure 10

LOCAL CHANGES IN PHASE LAG
MASTER
CAAMANO SOUND (Inside)

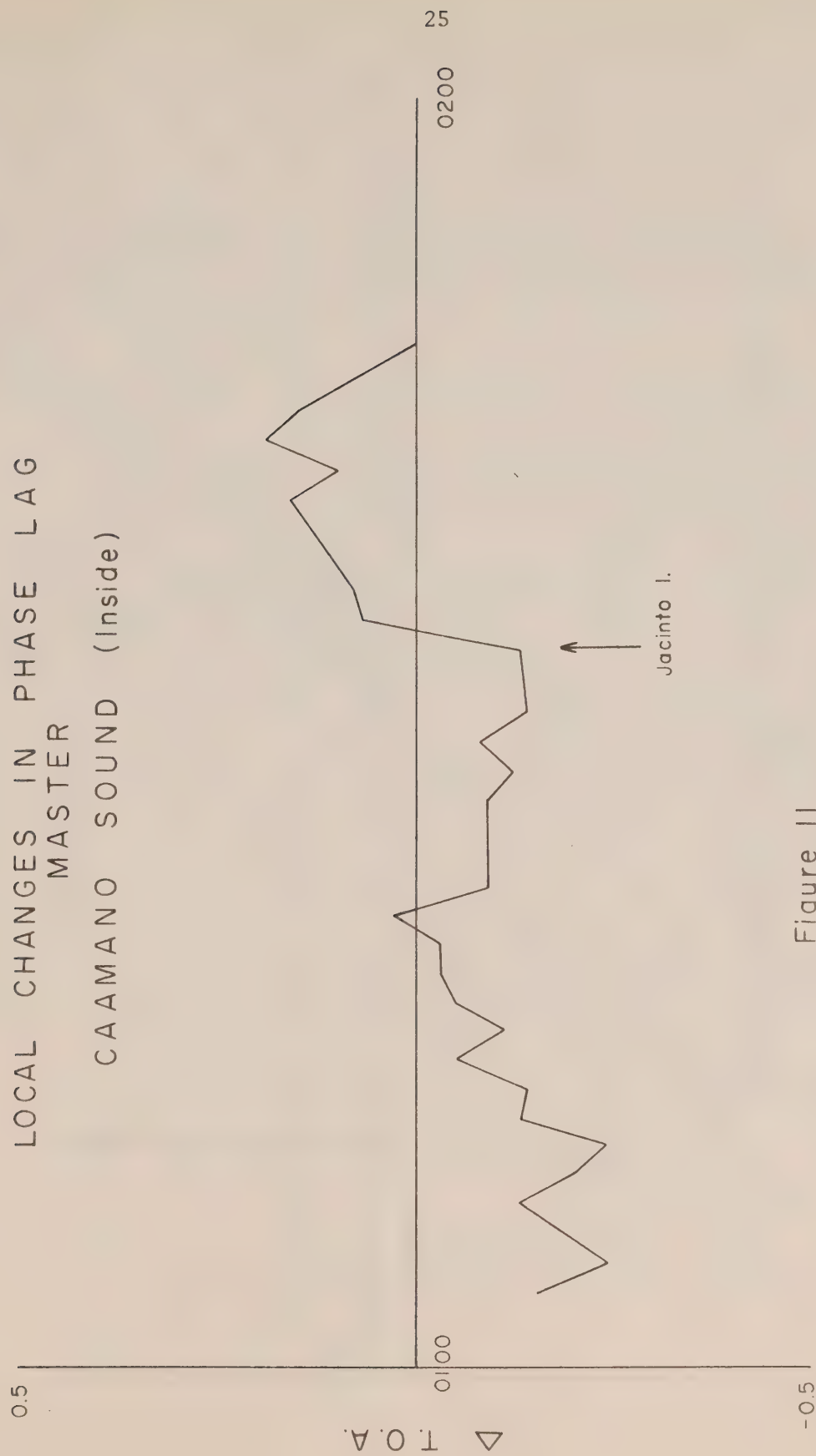


Figure II

LOCAL CHANGES IN PHASE LAG
X SECONDARY
CAAMANO SOUND (Inside)

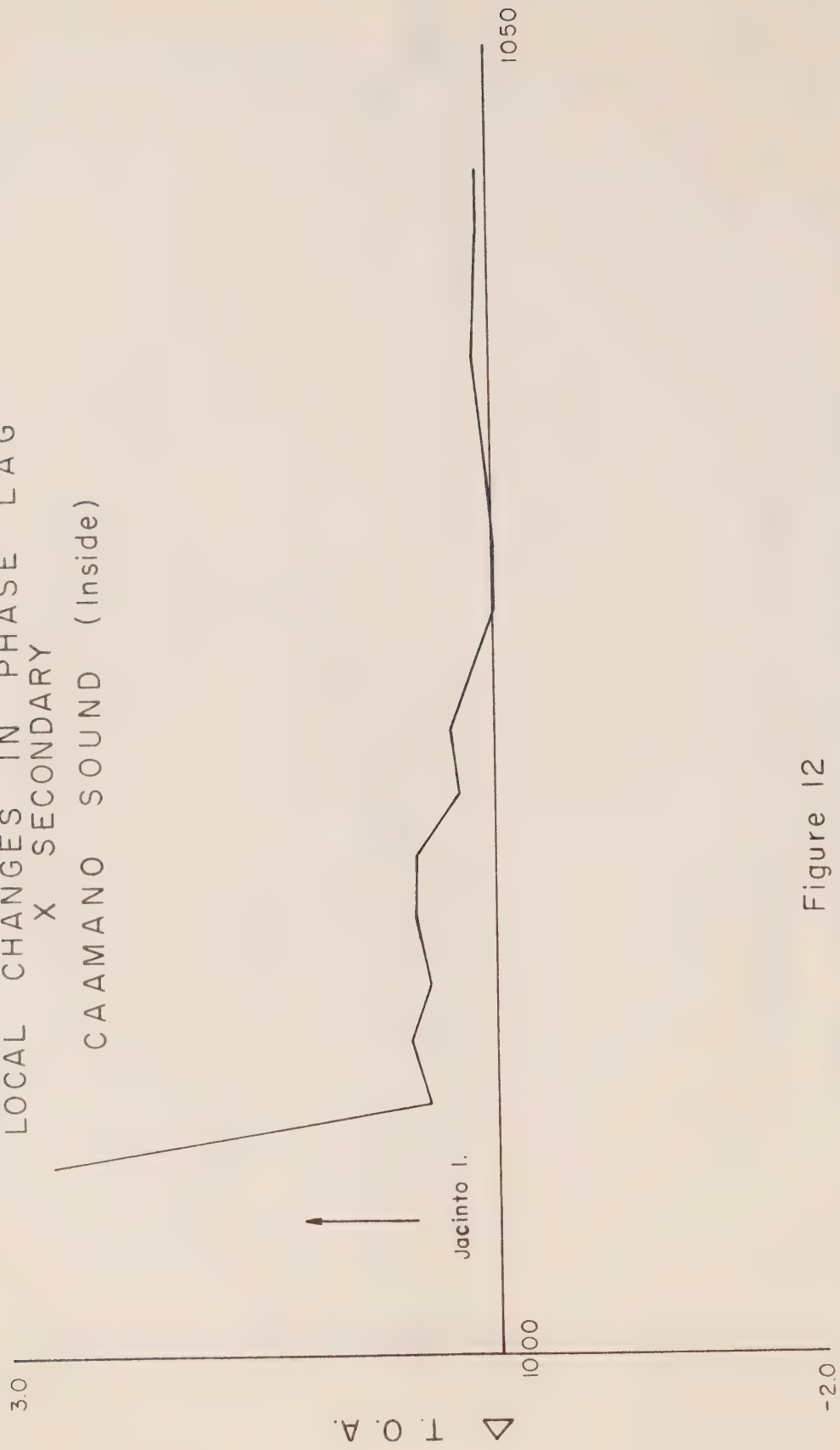


Figure 12

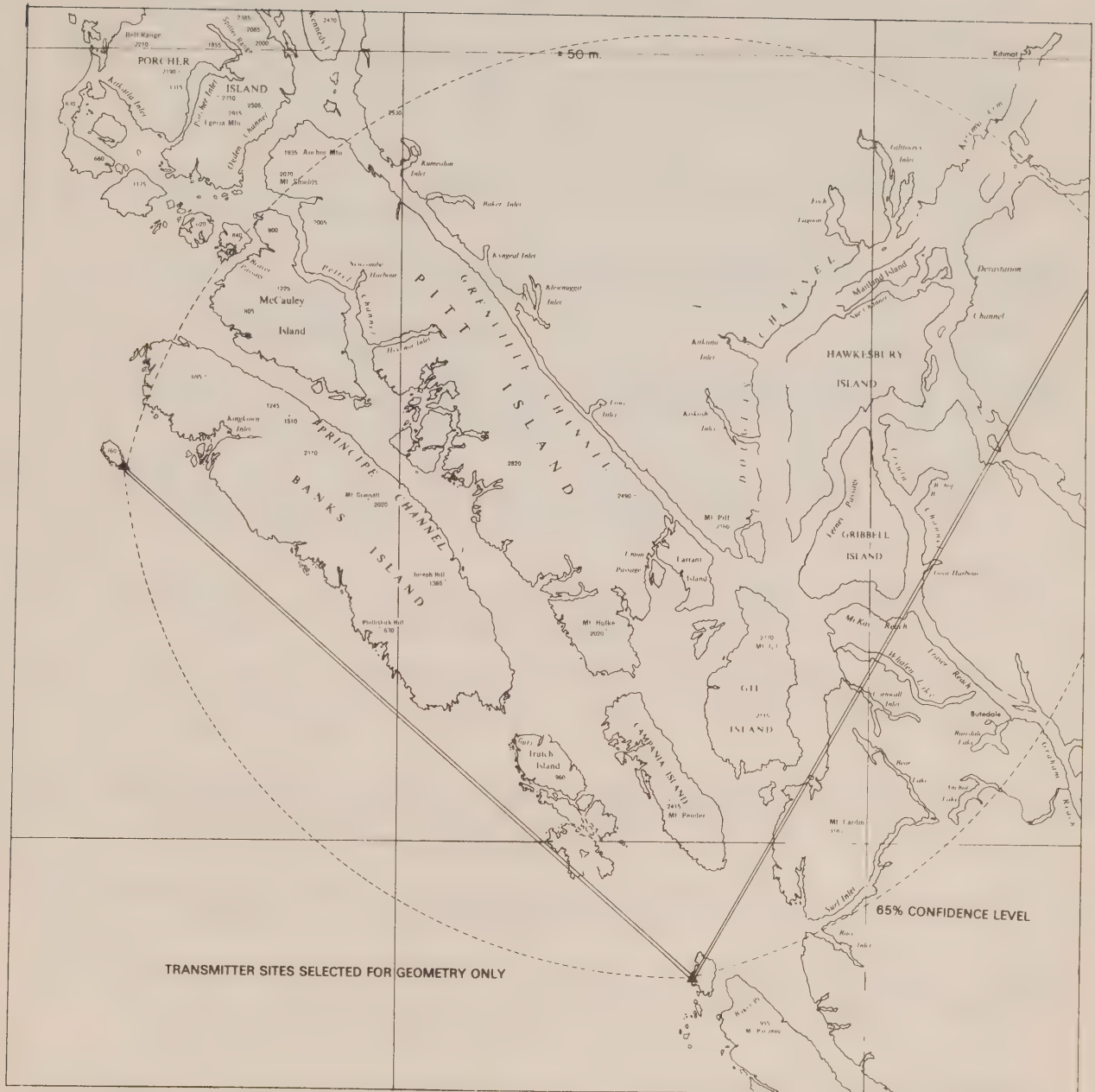


Figure 13

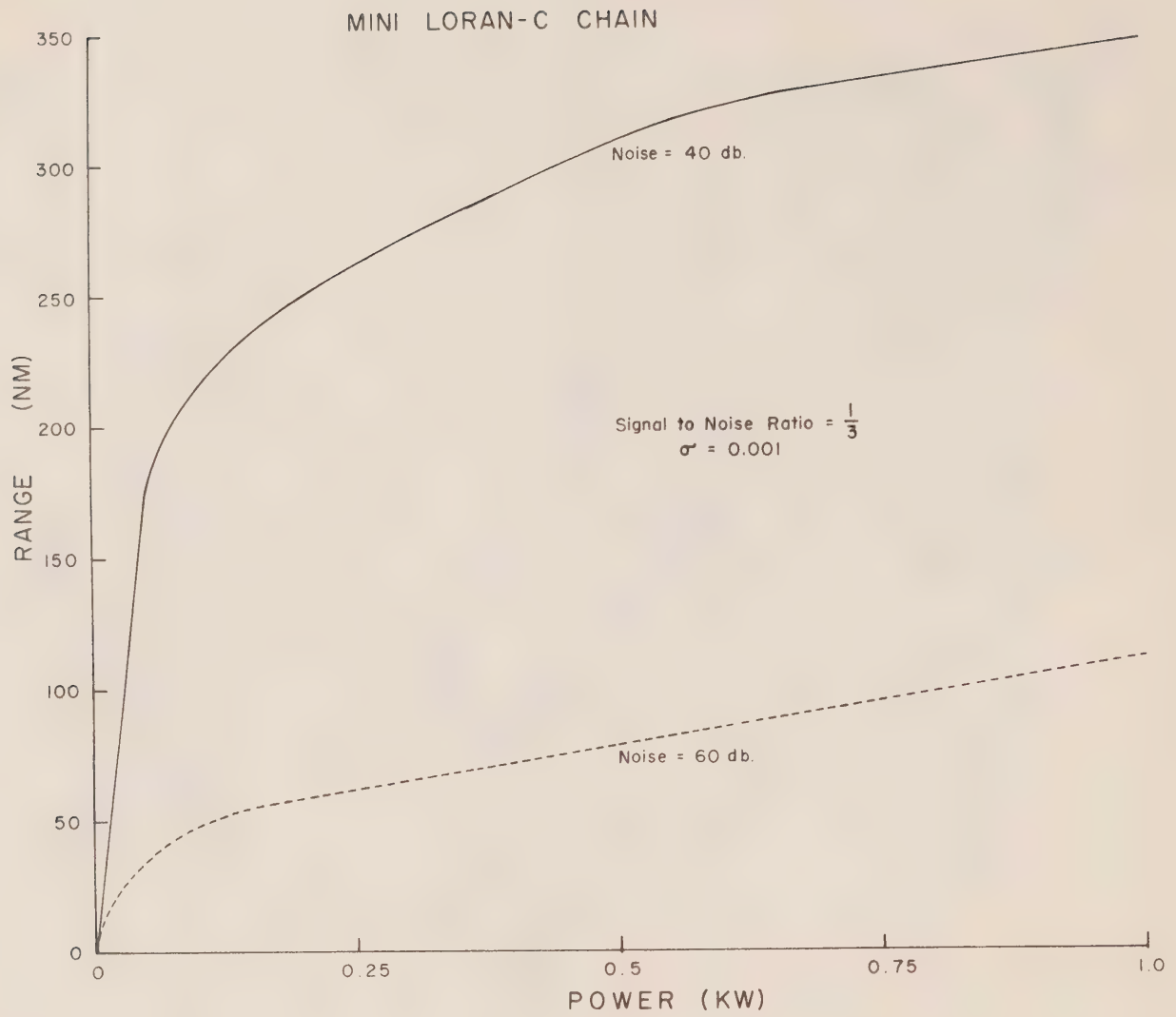


Figure 14

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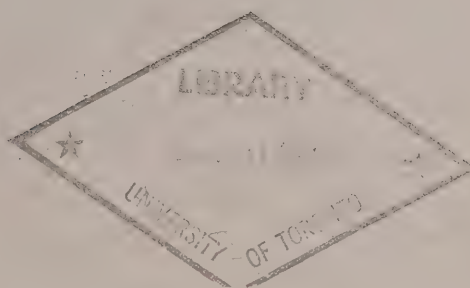
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**OCEANOGRAPHIC DATA
CROZIER AND PULLEN STRAITS,
N.W.T.**

March - April 1977

by

Frozen Sea Research Group



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ABSTRACT

This report contains in situ readings of conductivity, temperature and pressure from the waters of Crozier and Pullen Straits. The data were collected during March and April of 1977. Also included are the calculated values of salinity, specific gravity anomaly and velocity of sound.

1. Data Recording

Conductivity (C), temperature (T) and pressure (D) measurements were taken with a Guildline Model 8101A CTD unit in conjunction with the installation of 21 recording current meters in Crozier and Pullen Straits. The accuracy of the conductivity measurement is monitored periodically by taking water samples with oceanographic bottles. These water samples were measured for salinity with a Hytech model 6220 calibrated with Standard Sea Water. Thermistors used to calibrate temperature were transfer standards calibrated in a triple point cell. Values obtained from the bench salinometer and thermistors were compared with the CTD values obtained coincidentally and temperature and salinity corrections were determined. Corrections for both parameters were to three decimal places and agreed very well with past corrections for the same instrument.

The principal recording system for output of the Guildline CTD instrument was a Vidar 5200 data logger with printed and punched paper tape output.

2. Data Processing - Equations

The values of pressure and temperature listed were measured directly.

The listed values of salinity, sigmat and sound velocity are calculated from equations found in the following references.

(a) Salinity

Perkin, R. G. and E. R. Walker, 1972. Salinity Calculations from In Situ Measurements. J. Geophys. Res., 77(33): p. 6618.

(b) Sigmat (specific gravity anomaly).

Cox, R. A., J. J. McCartney and F. Culkin, 1970. The Specific Gravity/Salinity/Temperature Relationship in Natural Sea Water. Deep-Sea Res., 17(14): p.679.

(c) Sound Velocity

Wilson, W. D. 1960. Speed of Sound in Sea Water as a Function of Temperature, Pressure and Salinity. J. Acoustical Soc. Amer., 32(6): p. 5.

(d) Insitu Freezing Point (plot only)

Fujino, K., E. L. Lewis and R. G. Perkin, 1974. The Freezing Point of Seawater at Pressures up to 100 Bars. J. Geophysical Res., 79 (12) p. 1792.

3. Data Format

Cruise: Cruise number assigned by the Marine Environmental Data Service (M.E.D.S.)

Title: Geographic location by name and year.

Site: Name for a specific site at the location shown on the map and table of geographic positions.

Experiment No.: Each CTD drop was assigned a unique experiment number.

Lat.: Latitude of experimental site, DD-MM-SS

Long.: Longitude of experimental site, DD-MM-SS

Date: DD MM YY (day, month, year)

G.M.T.: Greenwich Mean Time, HH-MM (hour, minutes).
Local time is G.M.T. plus 6 hours.

U.T.M.: The Universal Transverse Mercator Grid co-ordinates are given for the zone stated.

Depth Incr. Vertical increment in meters between sequential readings.

Water Depth: Depth in meters as determined by depth sounder.

Depth: Corresponds to depth of the CTD transducers below water level as indicated by the length of submerged CTD cable.

Press: Pressure in decibars as read by the CTD pressure transducer.

Temp.: Temperature in degrees celsius (°C).

Cond.: Conductivity in mmho.

Sal.: Salinity in parts per thousand (‰).

Sigmat: Specific gravity anomaly, sigma-T. Density = $1 + 10^3$ (sigma-T) at atmospheric pressure.

Sound: Speed of propagation of sound in water in meters per second.

4. Accuracy and Resolution

	<u>Accuracy</u>	<u>Resolution</u>
Salinity	$\pm 0.01\text{‰}$	$\pm 0.004\text{‰}$
Temperature	$\pm 0.005^{\circ}\text{C}$	$\pm 0.002\text{ }^{\circ}\text{C}$
Pressure	$\pm 2\%$	$\pm 0.1\text{ decibars}$

5. Geographical Location

The latitude and longitude quoted where derived from map positions plotted from Universal Transverse Mercator Grid (U.T.M.) data. The U.T.M. co-ordinates are determined by measuring the distance to Geodetic measurements using a Del Norte Range/Range system. For Crozier Strait monuments 62-A-72 and 62-A-73 on Karluk Island were used. For Pullen Strait monument 62-A-181 on the east side of Little Cornwallis Island was used together with an arbitrary location on Marshall Peninsula. The latter location was fixed by triangulation using a sextant. The actual site on the Peninsula is marked by a metal stake and small tripod.

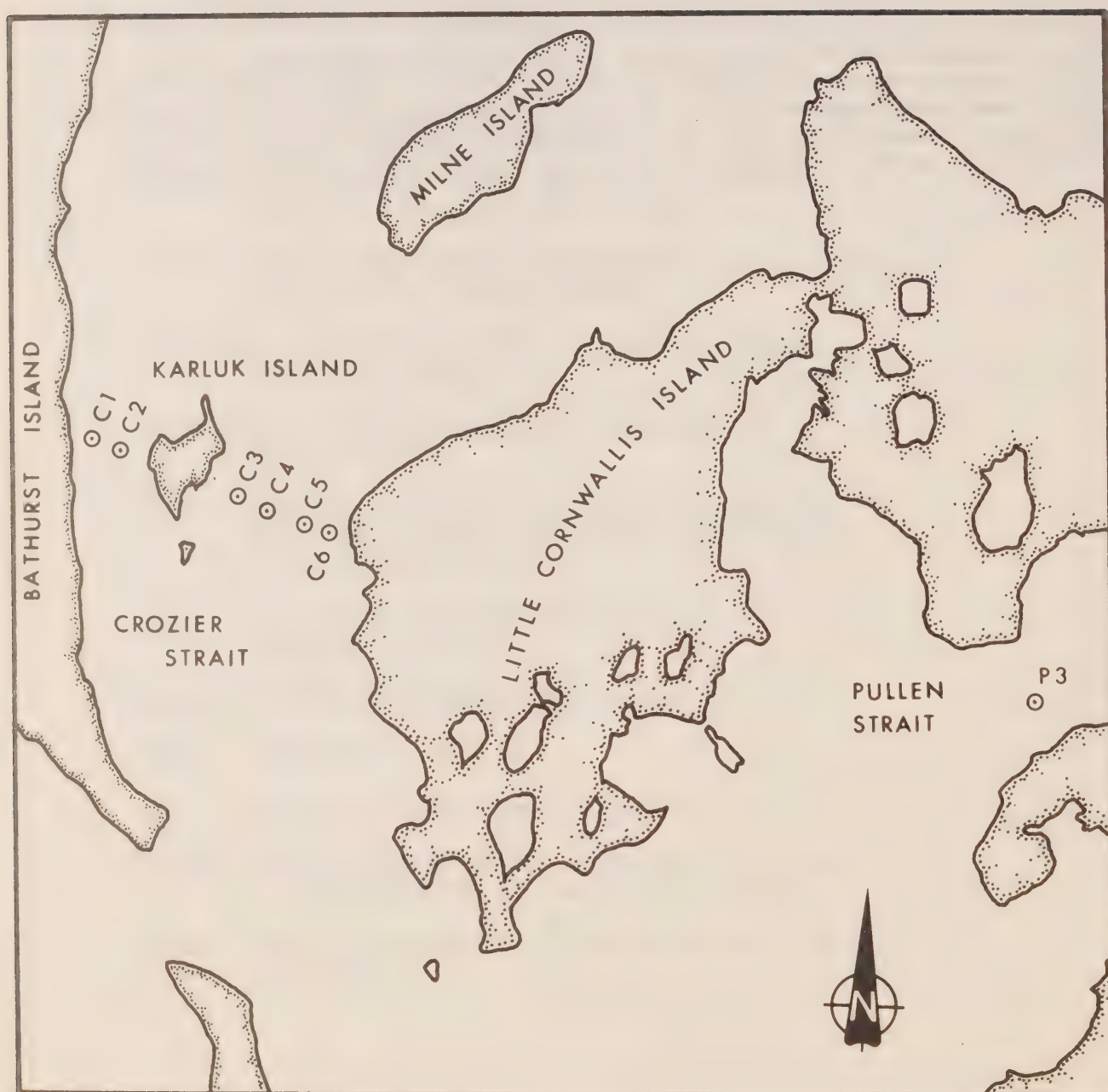
CROZIER AND PULLEN STRAITS

CTD Profile Sites

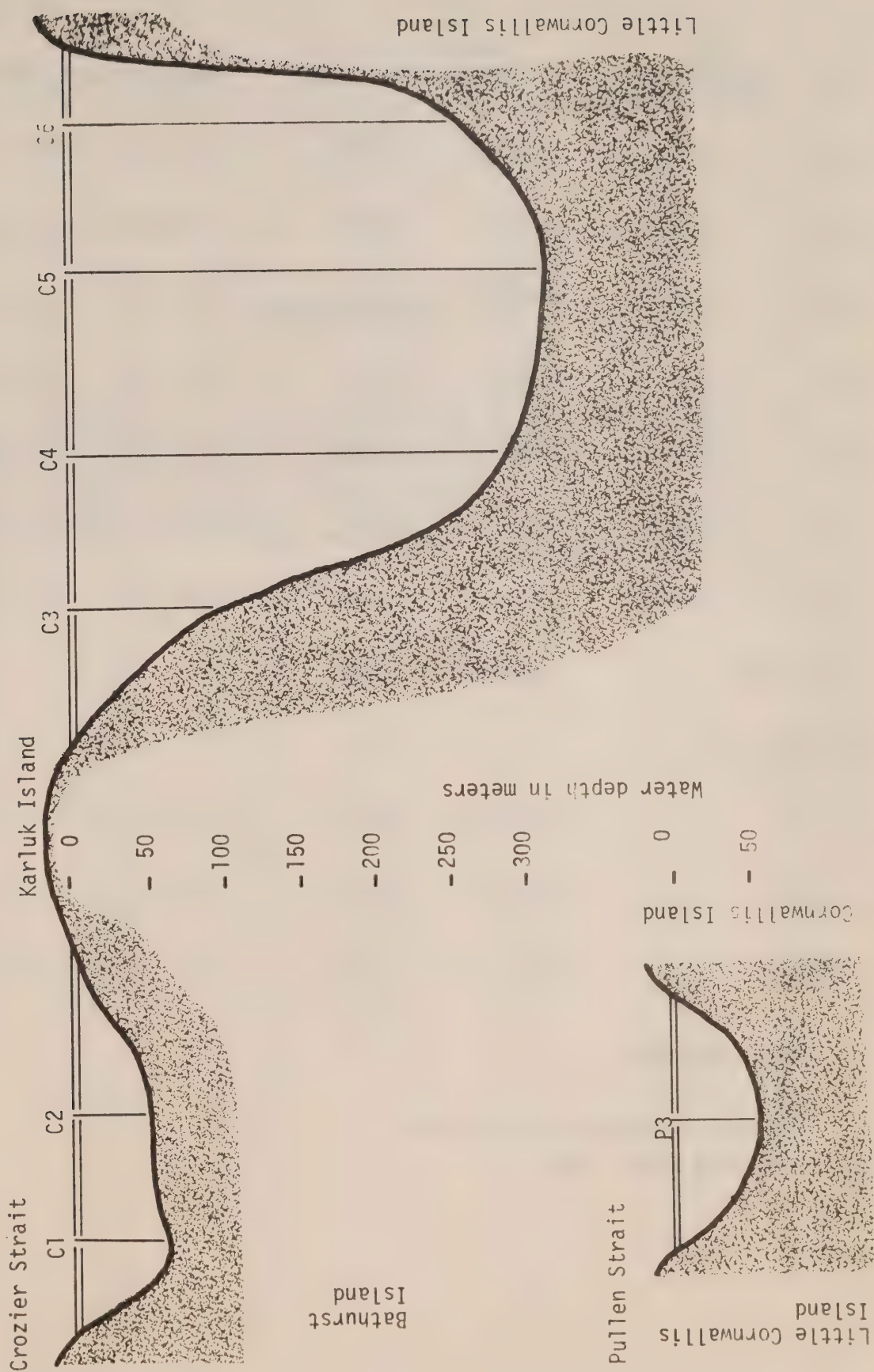
From: National Topographic Map

Scale: 1:250,000

"McDougal Sound" 68H



CTD PROFILES - SCHEMATIC



<u>Site</u>	<u>CTD Exper. No.</u>	<u>Zone 14 U.T.M. Coordinates</u>		<u>Geographical Coordinates</u>	
		<u>N.</u>	<u>E.</u>	<u>N.</u>	<u>W.</u>
C(1)	3013	8382966	545396	75°31'36"	97°22'13"
C(2)	3014	8382613	546421	74°31'28"	97°19'47"
C(3)	3038	8381093	551025	75°30'30"	97°10'26"
C(4)	3037 3031	8380531	552114	75°30'16"	97°08'01"
C(5)	3030	8379956	553636	75°29'58"	97°05'05"
C(6)	3015 to 3027	8379637	554472	75°29'49"	97°02'56"
P(3)	3039	8374755	581462	75°26'32:	96°05'53"
Tide Gauge		8381647	549982		

Geodetic sites

62-A-72	8381120.0	549021.1	75°30'37.10	97°14'40.79
62-A-73	8382936.0	550096.1	75°31'34.62	97°12'15.20
62-A-181	8377376.2	580036.7	75°27'58.15	96°08'32.87

Map References

National Topographic 1:250,000 map
 "McDougal Sound" 68H

ACKNOWLEDGEMENT

The success in collecting this data is in large part due to the competence and perserverance of the technical staff of the Frozen Sea Research Group who often carried out their work under adverse Arctic conditions. Acknowledgement is also made of the logistic support of the Polar Continental Shelf Project at Resolute, N.W.T. and the major logistic support provided by the Polar Gas Project.

EXPERIMENT 3013

TEMPERATURE. C

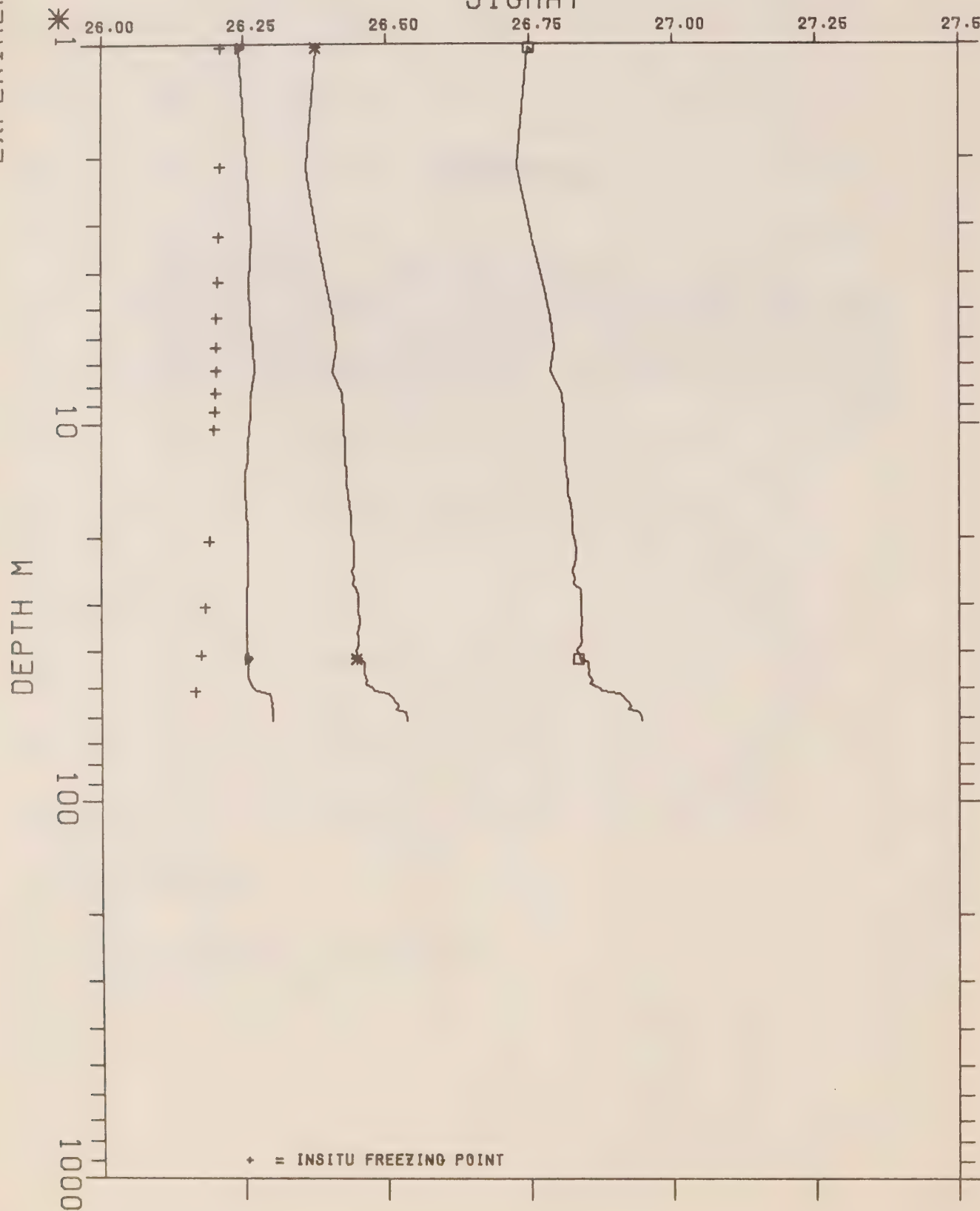
-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(1)M EXPERIMENT 3013
 LAT.N. 75-31-36 LONG.W. 97-22-13 DATE 280377 G.M.T. 2230
 U.T.M. ZONE 14 8383036 N 545472 E DEPTH INCR 1.00 WATER DEPTH 62 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
1.0	1.03	-1.757	25.974	32.748	26.377	1438.0
2.0	2.12	-1.742	25.971	32.727	26.360	1438.0
3.0	3.24	-1.736	25.995	32.753	26.380	1438.1
4.0	4.27	-1.739	26.007	32.772	26.396	1438.1
5.0	5.30	-1.737	26.018	32.785	26.407	1438.2
6.0	6.32	-1.732	26.028	32.791	26.412	1438.2
7.0	7.31	-1.730	26.024	32.784	26.406	1438.2
8.0	8.36	-1.737	26.034	32.805	26.423	1438.3
9.0	9.33	-1.737	26.036	32.807	26.425	1438.3
10.0	10.38	-1.740	26.035	32.809	26.426	1438.3
11.0	11.36	-1.742	26.035	32.810	26.427	1438.3
12.0	12.40	-1.742	26.035	32.809	26.426	1438.3
13.0	13.40	-1.747	26.034	32.813	26.429	1438.3
14.0	14.42	-1.747	26.036	32.815	26.431	1438.3
15.0	15.44	-1.746	26.037	32.816	26.432	1438.3
16.0	16.43	-1.745	26.042	32.821	26.436	1438.4
17.0	17.46	-1.744	26.044	32.822	26.437	1438.4
18.0	18.45	-1.742	26.047	32.822	26.437	1438.4
19.0	19.50	-1.742	26.048	32.823	26.438	1438.4
20.0	20.49	-1.741	26.052	32.828	26.442	1438.5
21.0	21.53	-1.743	26.053	32.829	26.443	1438.5
22.0	22.51	-1.743	26.053	32.829	26.442	1438.5
23.0	23.54	-1.741	26.054	32.828	26.441	1438.5
24.0	24.54	-1.743	26.050	32.823	26.438	1438.5
25.0	25.58	-1.743	26.053	32.828	26.442	1438.5
26.0	26.57	-1.744	26.051	32.826	26.440	1438.6
27.0	27.59	-1.744	26.059	32.836	26.448	1438.6
28.0	28.60	-1.744	26.061	32.838	26.449	1438.6
29.0	29.62	-1.744	26.061	32.838	26.449	1438.6
30.0	30.64	-1.744	26.062	32.839	26.450	1438.6
31.0	31.65	-1.744	26.063	32.839	26.450	1438.7
32.0	32.65	-1.745	26.064	32.840	26.452	1438.7
33.0	33.68	-1.744				
34.0	34.64	-1.745	26.062	32.837	26.449	1438.7
35.0	35.72	-1.746	26.062	32.837	26.449	1438.7
36.0	36.68	-1.746	26.063	32.838	26.450	1438.7
37.0	37.71	-1.745	26.065	32.839	26.451	1438.7
38.0	38.73	-1.744	26.065	32.839	26.450	1438.8
39.0	39.73	-1.745	26.060	32.831	26.444	1438.8
40.0	40.80	-1.743	26.065	32.836	26.448	1438.8
41.0	41.75	-1.744	26.064	32.835	26.447	1438.8
42.0	42.81	-1.743	26.076	32.850	26.459	1438.9
43.0	43.78	-1.743	26.077	32.850	26.460	1438.9
44.0	44.81	-1.743	26.079	32.851	26.461	1438.9
45.0	45.84	-1.743	26.079	32.851	26.460	1438.9
46.0	46.82	-1.742	26.081	32.853	26.462	1438.9
47.0	47.87	-1.740	26.086	32.857	26.465	1439.0
48.0	48.85	-1.737	26.086	32.854	26.462	1439.0
49.0	49.92	-1.733	26.101	32.869	26.475	1439.0
50.0	50.87	-1.728	26.107	32.871	26.476	1439.1
51.0	51.92	-1.704	26.150	32.905	26.503	1439.3
52.0	52.90	-1.702	26.158	32.913	26.510	1439.3
53.0	53.94	-1.702	26.162	32.917	26.513	1439.3
54.0	54.93	-1.701	26.167	32.922	26.517	1439.4
55.0	55.96	-1.701	26.170	32.926	26.520	1439.4
56.0	56.99	-1.700	26.167	32.920	26.516	1439.4
57.0	57.99	-1.700	26.182	32.940	26.532	1439.4
58.0	59.02	-1.700	26.184	32.942	26.533	1439.5
59.0	59.97	-1.700	26.186	32.944	26.535	1439.5
60.0	60.78	-1.699				

EXPERIMENT 3014

TEMPERATURE. C

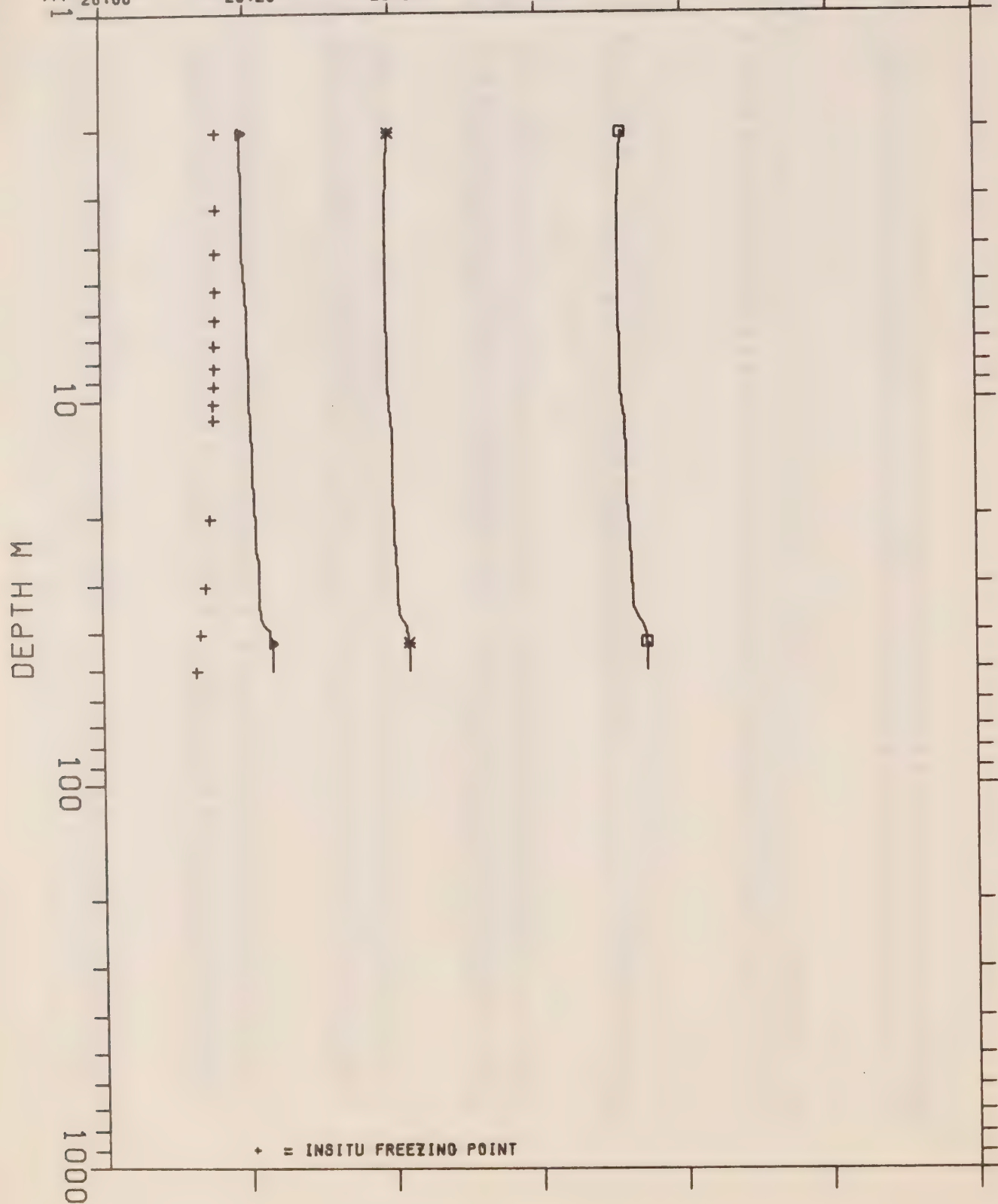
▲ -1.00 -0.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY 0/00

◻ 32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

* 26.00 26.25 26.50 26.75 27.00 27.25 27.50

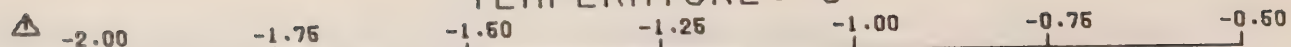


CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(2)M EXPERIMENT 3014
 LAT.N. 75-31-28 LONG.W. 97-19-47 DATE 300377 G.M.T. 2130
 U.T.M. ZONE 14 8382612 N 546421.3 E DEPTH INCR 1.00 WATER DEPTH 52 M

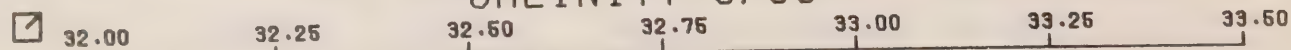
DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.05	-1.757	26.080	32.895	26.496	1438.2
3.0	3.23	-1.756	26.077	32.888	26.490	1438.2
4.0	4.21	-1.755	26.077	32.887	26.489	1438.2
5.0	5.26	-1.751	26.081	32.887	26.490	1438.3
6.0	6.24	-1.748	26.084	32.887	26.490	1438.3
7.0	7.27	-1.746	26.087	32.890	26.492	1438.3
8.0	8.30	-1.746	26.088	32.890	26.492	1438.3
9.0	9.27	-1.746	26.088	32.890	26.492	1438.4
10.0	10.32	-1.745	26.092	32.893	26.494	1438.4
11.0	11.28	-1.744	26.096	32.897	26.497	1438.4
12.0	12.34	-1.742	26.099	32.899	26.499	1438.4
13.0	13.31	-1.740	26.102	32.899	26.499	1438.5
14.0	14.37	-1.740	26.103	32.900	26.500	1438.5
15.0	15.36	-1.739	26.104	32.900	26.500	1438.5
16.0	16.36	-1.739	26.104	32.900	26.500	1438.5
17.0	17.39	-1.738	26.106	32.900	26.500	1438.5
18.0	18.37	-1.738	26.107	32.901	26.501	1438.6
19.0	19.42	-1.737	26.109	32.902	26.502	1438.6
20.0	20.43	-1.736	26.111	32.903	26.503	1438.6
21.0	21.41	-1.736	26.112	32.904	26.503	1438.6
22.0	22.45	-1.736	26.112	32.904	26.503	1438.6
23.0	23.42	-1.735	26.113	32.904	26.503	1438.7
24.0	24.48	-1.735	26.114	32.905	26.504	1438.7
25.0	25.48	-1.733	26.118	32.907	26.505	1438.7
26.0	26.46	-1.731	26.121	32.908	26.506	1438.7
27.0	27.53	-1.731	26.121	32.908	26.506	1438.7
28.0	28.49	-1.731	26.122	32.908	26.506	1438.8
29.0	29.53	-1.731	26.122	32.908	26.507	1438.8
30.0	30.57	-1.730	26.124	32.910	26.508	1438.8
31.0	31.51	-1.730	26.125	32.910	26.508	1438.8
32.0	32.56	-1.730	26.126	32.910	26.508	1438.8
33.0	33.52	-1.730	26.127	32.911	26.508	1438.9
34.0	34.58	-1.730	26.127	32.911	26.509	1438.9
35.0	35.56	-1.728	26.131	32.914	26.511	1438.9
36.0	36.60	-1.726	26.135	32.917	26.513	1438.9
37.0	37.58	-1.725	26.140	32.921	26.517	1439.0
38.0	38.59	-1.721	26.148	32.927	26.522	1439.0
39.0	39.60	-1.714	26.155	32.929	26.523	1439.1
40.0	40.61	-1.712	26.159	32.932	26.525	1439.1
41.0	41.64	-1.709	26.162	32.932	26.526	1439.1
42.0	42.60	-1.708	26.164	32.933	26.526	1439.1
43.0	43.67	-1.708	26.165	32.934	26.527	1439.2
44.0	44.62	-1.707	26.167	32.934	26.527	1439.2
45.0	45.69	-1.707	26.167	32.934	26.527	1439.2
46.0	46.65	-1.707	26.168	32.935	26.527	1439.2
47.0	47.71	-1.707	26.168	32.934	26.527	1439.2
48.0	48.66	-1.707	26.168	32.934	26.527	1439.2
49.0	49.58	-1.707	26.168	32.934	26.527	1439.3
50.0	50.49	-1.707	26.170	32.936	26.528	1439.3

EXPERIMENT 3015

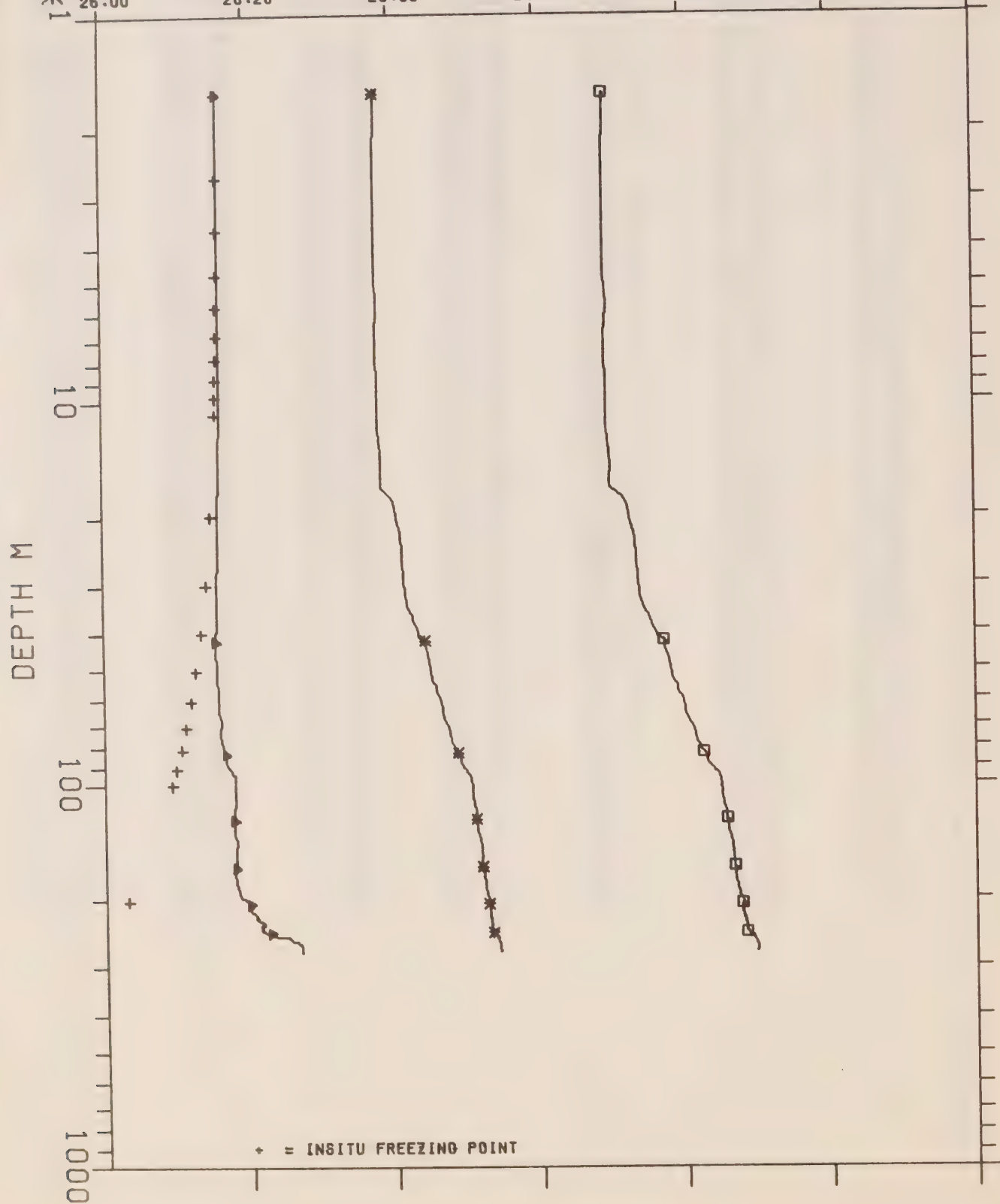
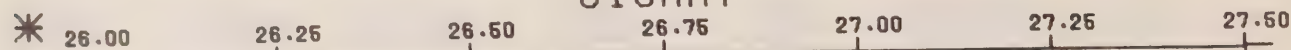
TEMPERATURE. C



SALINITY 0/00



SIGMAT



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3015
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 030477 G.M.T. 2022
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	1.62	-1.798	26.027	32.867	26.474	1437.9
3.0	2.68	-1.798	26.027	32.866	26.473	1438.0
4.0	3.66	-1.798	26.027	32.865	26.473	1438.0
5.0	4.76	-1.798	26.027	32.865	26.473	1438.0
6.0	5.78	-1.799	26.030	32.869	26.476	1438.0
7.0	6.84	-1.798	26.029	32.866	26.473	1438.0
8.0	7.87	-1.798	26.029	32.865	26.473	1438.0
9.0	8.89	-1.798	26.030	32.867	26.475	1438.1
10.0	9.86	-1.798	26.031	32.867	26.474	1438.1
11.0	10.91	-1.798	26.031	32.867	26.474	1438.1
12.0	11.94	-1.799	26.032	32.868	26.475	1438.1
13.0	12.91	-1.799	26.034	32.870	26.477	1438.1
14.0	13.96	-1.800	26.036	32.874	26.480	1438.1
15.0	15.00	-1.800	26.037	32.875	26.481	1438.2
16.0	15.97	-1.800	26.037	32.873	26.480	1438.2
17.0	17.00	-1.800	26.037	32.873	26.479	1438.2
18.0	18.03	-1.802	26.052	32.895	26.497	1438.2
19.0	19.07	-1.802	26.057	32.902	26.503	1438.3
20.0	20.06	-1.802	26.060	32.906	26.506	1438.3
21.0	21.05	-1.803	26.062	32.908	26.508	1438.3
22.0	22.10	-1.803	26.066	32.914	26.512	1438.3
23.0	23.11	-1.803	26.067	32.915	26.513	1438.3
24.0	24.09	-1.804	26.068	32.916	26.514	1438.4
25.0	25.12	-1.804	26.069	32.917	26.515	1438.4
26.0	26.17	-1.803	26.070	32.917	26.515	1438.4
27.0	27.12	-1.804	26.071	32.918	26.516	1438.4
28.0	28.16	-1.804	26.071	32.919	26.516	1438.4
29.0	29.21	-1.804	26.072	32.919	26.517	1438.4
30.0	30.21	-1.804	26.073	32.921	26.518	1438.5
31.0	31.19	-1.805	26.075	32.923	26.520	1438.5
32.0	32.23	-1.805	26.075	32.923	26.520	1438.5
33.0	33.25	-1.805	26.077	32.925	26.522	1438.5
34.0	34.22	-1.805	26.079	32.928	26.524	1438.5
35.0	35.22	-1.805	26.081	32.929	26.525	1438.6
36.0	36.25	-1.806	26.087	32.938	26.532	1438.6
37.0	37.29	-1.806	26.089	32.940	26.534	1438.6
38.0	38.31	-1.806	26.091	32.943	26.536	1438.6
39.0	39.30	-1.806	26.094	32.946	26.539	1438.6
40.0	40.29	-1.806	26.098	32.951	26.543	1438.7
41.0	41.32	-1.807	26.098	32.951	26.543	1438.7
42.0	42.36	-1.807	26.107	32.964	26.553	1438.7
43.0	43.39	-1.807	26.109	32.966	26.554	1438.7
44.0	44.36	-1.807	26.110	32.966	26.555	1438.7
45.0	45.36	-1.806	26.112	32.968	26.557	1438.8
46.0	46.39	-1.806	26.115	32.971	26.559	1438.8
47.0	47.43	-1.806	26.117	32.973	26.560	1438.8
48.0	48.43	-1.805	26.118	32.973	26.561	1438.8
49.0	49.42	-1.805	26.119	32.974	26.561	1438.8
50.0	50.43	-1.805	26.120	32.975	26.562	1438.9
51.0	51.49	-1.805	26.122	32.977	26.563	1438.9
52.0	52.49	-1.805	26.124	32.979	26.565	1438.9
53.0	53.47	-1.805	26.126	32.980	26.566	1438.9
54.0	54.49	-1.804	26.128	32.982	26.568	1438.9
55.0	55.53	-1.804	26.132	32.986	26.571	1439.0
56.0	56.55	-1.803	26.134	32.988	26.573	1439.0
57.0	57.51	-1.803	26.134	32.989	26.573	1439.0
58.0	58.56	-1.803	26.137	32.991	26.575	1439.0
59.0	59.62	-1.803	26.140	32.995	26.578	1439.1
60.0	60.63	-1.802	26.143	32.997	26.580	1439.1
61.0	61.58	-1.802	26.144	32.999	26.581	1439.1
62.0	62.61	-1.802	26.146	33.000	26.582	1439.1
63.0	63.66	-1.802	26.147	33.000	26.583	1439.1

EXPERIMENT 3015

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	64.64	-1.801	26.148	33.001	26.583	1439.2
65.0	65.63	-1.801	26.149	33.001	26.583	1439.2
66.0	66.68	-1.800	26.151	33.002	26.584	1439.2
67.0	67.67	-1.799	26.154	33.004	26.586	1439.2
68.0	68.66	-1.797	26.157	33.007	26.588	1439.2
69.0	69.71	-1.797	26.160	33.010	26.591	1439.3
70.0	70.74	-1.799	26.160	33.013	26.592	1439.3
71.0	71.70	-1.800	26.161	33.014	26.594	1439.3
72.0	72.74	-1.800	26.163	33.015	26.595	1439.3
73.0	73.77	-1.800	26.164	33.017	26.596	1439.3
74.0	74.76	-1.800	26.165	33.017	26.596	1439.3
75.0	75.77	-1.798	26.168	33.018	26.597	1439.4
76.0	76.82	-1.798	26.169	33.019	26.598	1439.4
77.0	77.80	-1.797	26.171	33.020	26.598	1439.4
78.0	78.80	-1.796	26.174	33.022	26.600	1439.4
79.0	79.85	-1.794	26.177	33.024	26.602	1439.5
80.0	80.84	-1.794	26.178	33.025	26.603	1439.5
81.0	81.84	-1.794	26.180	33.027	26.604	1439.5
82.0	82.89	-1.791	26.186	33.032	26.608	1439.5
83.0	83.91	-1.790	26.190	33.035	26.611	1439.6
84.0	84.91	-1.790	26.191	33.037	26.612	1439.6
85.0	85.94	-1.790	26.192	33.037	26.612	1439.6
86.0	86.94	-1.790	26.193	33.038	26.613	1439.6
87.0	87.94	-1.790	26.194	33.038	26.613	1439.6
88.0	88.99	-1.788	26.198	33.041	26.615	1439.7
89.0	89.99	-1.784	26.202	33.043	26.617	1439.7
90.0	91.01	-1.783	26.206	33.045	26.619	1439.7
91.0	92.02	-1.781	26.210	33.049	26.622	1439.8
92.0	93.00	-1.780	26.214	33.051	26.623	1439.8
93.0	94.05	-1.775	26.220	33.055	26.626	1439.8
94.0	95.04	-1.774	26.223	33.057	26.628	1439.9
95.0	96.07	-1.774	26.224	33.059	26.629	1439.9
96.0	97.10	-1.775	26.226	33.060	26.630	1439.9
97.0	98.05	-1.774	26.227	33.060	26.631	1439.9
98.0	99.14	-1.775	26.227	33.061	26.631	1439.9
99.0	100.12	-1.775	26.229	33.062	26.632	1439.9
100.0	101.12	-1.775	26.228	33.062	26.632	1440.0
101.0	102.18	-1.775	26.229	33.061	26.631	1440.0
102.0	103.12	-1.775	26.230	33.062	26.632	1440.0
103.0	104.17	-1.775	26.231	33.062	26.632	1440.0
104.0	105.21	-1.775	26.231	33.062	26.632	1440.0
105.0	106.18	-1.774	26.231	33.062	26.632	1440.0
106.0	107.18	-1.774	26.232	33.063	26.633	1440.1
107.0	108.23	-1.775	26.233	33.064	26.633	1440.1
108.0	109.24	-1.775	26.233	33.063	26.633	1440.1
109.0	110.21	-1.776	26.234	33.064	26.634	1440.1
110.0	111.25	-1.776	26.234	33.064	26.634	1440.1
111.0	112.30	-1.776	26.234	33.065	26.634	1440.1
112.0	113.26	-1.776	26.235	33.065	26.635	1440.2
113.0	114.28	-1.776	26.236	33.066	26.635	1440.2
114.0	115.32	-1.777	26.237	33.067	26.636	1440.2
115.0	116.32	-1.776	26.239	33.068	26.637	1440.2
116.0	117.31	-1.777	26.240	33.070	26.639	1440.2
117.0	118.37	-1.777	26.240	33.070	26.639	1440.2
118.0	119.34	-1.777	26.241	33.070	26.639	1440.3
119.0	120.37	-1.777	26.241	33.071	26.639	1440.3
120.0	121.42	-1.777	26.242	33.070	26.639	1440.3
121.0	122.37	-1.777	26.242	33.070	26.639	1440.3
122.0	123.40	-1.777	26.242	33.070	26.639	1440.3
123.0	124.43	-1.777	26.243	33.070	26.639	1440.3
124.0	125.41	-1.777	26.244	33.071	26.639	1440.4
125.0	126.47	-1.777	26.244	33.071	26.640	1440.4
126.0	127.47	-1.777	26.245	33.072	26.640	1440.4
127.0	128.43	-1.777	26.245	33.072	26.640	1440.4
128.0	129.52	-1.777	26.246	33.072	26.640	1440.4
129.0	130.51	-1.777	26.246	33.072	26.640	1440.4
130.0	131.50	-1.777	26.247	33.072	26.640	1440.5

EXPERIMENT 3015

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	132.56	-1.777	26.248	33.072	26.640	1440.5
132.0	133.52	-1.777	26.248	33.073	26.641	1440.5
133.0	134.55	-1.777	26.250	33.075	26.642	1440.5
134.0	135.61	-1.775	26.253	33.075	26.643	1440.5
135.0	136.58	-1.777	26.251	33.075	26.643	1440.6
136.0	137.60	-1.776	26.253	33.076	26.644	1440.6
137.0	138.64	-1.773	26.257	33.077	26.644	1440.6
138.0	139.60	-1.772	26.258	33.077	26.644	1440.6
139.0	140.66	-1.772	26.259	33.078	26.645	1440.6
140.0	141.63	-1.773	26.259	33.079	26.646	1440.7
141.0	142.58	-1.773	26.260	33.079	26.646	1440.7
142.0	143.68	-1.774	26.261	33.080	26.646	1440.7
143.0	144.68	-1.775	26.261	33.081	26.647	1440.7
144.0	145.73	-1.775	26.261	33.080	26.647	1440.7
145.0	146.69	-1.775	26.261	33.081	26.647	1440.7
146.0	147.76	-1.775	26.262	33.081	26.647	1440.8
147.0	148.74	-1.775	26.263	33.081	26.648	1440.8
148.0	149.76	-1.775	26.263	33.081	26.648	1440.8
149.0	150.79	-1.775	26.264	33.081	26.648	1440.8
150.0	151.77	-1.775	26.264	33.082	26.648	1440.8
151.0	152.83	-1.775	26.265	33.082	26.648	1440.8
152.0	153.79	-1.775	26.266	33.083	26.649	1440.9
153.0	154.84	-1.775	26.266	33.082	26.648	1440.9
154.0	155.82	-1.775	26.266	33.082	26.648	1440.9
155.0	156.87	-1.775	26.267	33.082	26.649	1440.9
156.0	157.86	-1.775	26.267	33.082	26.649	1440.9
157.0	158.87	-1.775	26.267	33.082	26.648	1440.9
158.0	159.90	-1.775	26.268	33.082	26.649	1441.0
159.0	160.90	-1.775	26.268	33.082	26.648	1441.0
160.0	161.94	-1.775	26.269	33.082	26.648	1441.0
161.0	162.93	-1.775	26.269	33.082	26.648	1441.0
162.0	163.98	-1.776	26.270	33.083	26.649	1441.0
163.0	164.95	-1.776	26.270	33.083	26.649	1441.0
164.0	165.99	-1.776	26.271	33.083	26.649	1441.0
165.0	166.97	-1.776	26.271	33.083	26.649	1441.1
166.0	168.04	-1.776	26.271	33.083	26.649	1441.1
167.0	168.99	-1.776	26.272	33.084	26.650	1441.1
168.0	170.05	-1.777	26.272	33.084	26.650	1441.1
169.0	171.02	-1.777	26.273	33.084	26.650	1441.1
170.0	172.08	-1.777	26.273	33.084	26.650	1441.1
171.0	173.06	-1.776	26.274	33.084	26.650	1441.2
172.0	174.06	-1.776	26.275	33.085	26.650	1441.2
173.0	175.12	-1.776	26.276	33.085	26.651	1441.2
174.0	176.08	-1.775	26.277	33.085	26.651	1441.2
175.0	177.12	-1.775	26.278	33.086	26.652	1441.2
176.0	178.14	-1.775	26.279	33.086	26.651	1441.3
177.0	179.12	-1.775	26.279	33.086	26.652	1441.3
178.0	180.17	-1.775	26.280	33.086	26.652	1441.3
179.0	181.16	-1.774	26.281	33.086	26.652	1441.3
180.0	182.15	-1.773	26.282	33.087	26.652	1441.3
181.0	183.23	-1.773	26.283	33.087	26.652	1441.4
182.0	184.19	-1.773	26.283	33.087	26.652	1441.4
183.0	185.23	-1.773	26.284	33.087	26.652	1441.4
184.0	186.26	-1.771	26.286	33.087	26.653	1441.4
185.0	187.24	-1.770	26.288	33.088	26.653	1441.4
186.0	188.30	-1.770	26.289	33.089	26.654	1441.5
187.0	189.29	-1.769	26.291	33.090	26.654	1441.5
188.0	190.29	-1.769	26.292	33.090	26.655	1441.5
189.0	191.33	-1.769	26.293	33.091	26.655	1441.5
190.0	192.29	-1.770	26.293	33.091	26.656	1441.5
191.0	193.36	-1.769	26.294	33.091	26.656	1441.5
192.0	194.35	-1.768	26.295	33.092	26.656	1441.6
193.0	195.36	-1.766	26.296	33.091	26.656	1441.6
194.0	196.40	-1.764	26.300	33.093	26.657	1441.6
195.0	197.37	-1.762	26.303	33.093	26.657	1441.6
196.0	198.42	-1.754	26.309	33.094	26.657	1441.7
197.0	199.39	-1.759	26.307	33.095	26.658	1441.7

EXPERIMENT 3015

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	200.43	-1.752	26.313	33.095	26.659	1441.7
199.0	201.46	-1.753	26.314	33.096	26.659	1441.8
200.0	202.43	-1.752	26.315	33.096	26.659	1441.8
201.0	203.51	-1.751	26.316	33.096	26.659	1441.8
202.0	204.46	-1.751	26.317	33.097	26.660	1441.8
203.0	205.51	-1.751	26.317	33.096	26.659	1441.8
204.0	206.50	-1.752	26.317	33.096	26.659	1441.8
205.0	207.52	-1.751	26.318	33.096	26.659	1441.9
206.0	208.55	-1.751	26.318	33.096	26.659	1441.9
207.0	209.54	-1.751	26.318	33.096	26.659	1441.9
208.0	210.58	-1.752	26.319	33.096	26.659	1441.9
209.0	211.56	-1.752	26.319	33.096	26.659	1441.9
210.0	212.62	-1.751	26.320	33.096	26.659	1442.0
211.0	213.60	-1.751	26.321	33.096	26.659	1442.0
212.0	214.62	-1.746	26.325	33.096	26.659	1442.0
213.0	215.65	-1.746	26.325	33.097	26.659	1442.0
214.0	216.62	-1.744	26.328	33.096	26.659	1442.1
215.0	217.68	-1.742	26.329	33.096	26.659	1442.1
216.0	218.65	-1.740	26.332	33.098	26.661	1442.1
217.0	219.70	-1.741	26.332	33.098	26.661	1442.1
218.0	220.71	-1.741	26.333	33.098	26.660	1442.1
219.0	221.70	-1.741	26.333	33.099	26.661	1442.2
220.0	222.76	-1.739	26.337	33.100	26.662	1442.2
221.0	223.71	-1.739	26.336	33.099	26.661	1442.2
222.0	224.79	-1.740	26.337	33.100	26.662	1442.2
223.0	225.76	-1.731	26.344	33.100	26.662	1442.3
224.0	226.80	-1.734	26.344	33.102	26.663	1442.3
225.0	227.80	-1.728	26.348	33.101	26.663	1442.3
226.0	228.81	-1.727	26.350	33.102	26.663	1442.3
227.0	229.83	-1.728	26.349	33.101	26.662	1442.4
228.0	230.80	-1.728	26.350	33.102	26.663	1442.4
229.0	231.87	-1.728	26.351	33.103	26.664	1442.4
230.0	232.85	-1.732	26.348	33.102	26.663	1442.4
231.0	233.91	-1.732	26.348	33.102	26.664	1442.4
232.0	234.86	-1.731	26.349	33.101	26.663	1442.4
233.0	235.92	-1.731	26.350	33.102	26.663	1442.4
234.0	236.92	-1.733	26.349	33.102	26.664	1442.4
235.0	237.94	-1.730	26.351	33.102	26.663	1442.5
236.0	238.95	-1.732	26.350	33.102	26.663	1442.5
237.0	239.95	-1.728	26.354	33.103	26.664	1442.5
238.0	240.98	-1.729	26.354	33.103	26.664	1442.5
239.0	241.96	-1.722	26.361	33.103	26.664	1442.6
240.0	242.98	-1.716	26.367	33.105	26.665	1442.6
241.0	244.03	-1.714	26.370	33.106	26.666	1442.7
242.0	245.00	-1.713	26.371	33.106	26.667	1442.7
243.0	246.02	-1.711	26.374	33.107	26.667	1442.7
244.0	247.09	-1.709	26.377	33.108	26.668	1442.7
245.0	248.03	-1.704	26.382	33.110	26.669	1442.8
246.0	249.10	-1.685	26.401	33.114	26.673	1442.9
247.0	250.12	-1.685	26.402	33.115	26.673	1442.9
248.0	251.10	-1.682	26.405	33.115	26.673	1442.9
249.0	252.13	-1.683	26.406	33.116	26.674	1443.0
250.0	253.15	-1.680	26.408	33.116	26.674	1443.0
251.0	254.11	-1.680	26.409	33.116	26.674	1443.0
252.0	255.11	-1.678	26.412	33.117	26.675	1443.0
253.0	256.13	-1.670	26.419	33.119	26.676	1443.1
254.0	257.13	-1.669	26.421	33.119	26.676	1443.1
255.0	258.20	-1.669	26.422	33.120	26.676	1443.1
256.0	259.20	-1.666	26.426	33.121	26.677	1443.2
257.0	260.21	-1.665	26.427	33.121	26.678	1443.2
258.0	261.18	-1.664	26.428	33.121	26.678	1443.2
259.0	262.20	-1.663	26.430	33.122	26.678	1443.2
260.0	263.20	-1.663	26.431	33.122	26.678	1443.2
261.0	264.23	-1.663	26.431	33.122	26.678	1443.3
262.0	265.17	-1.663	26.431	33.122	26.678	1443.3
263.0	266.18	-1.662	26.432	33.122	26.678	1443.3
264.0	267.19	-1.662	26.433	33.122	26.678	1443.3

EXPERIMENT 3015

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.23	-1.662	26.434	33.122	26.678	1443.3
266.0	269.22	-1.662	26.434	33.123	26.679	1443.3
267.0	270.23	-1.661	26.435	33.123	26.679	1443.4
268.0	271.27	-1.661	26.436	33.123	26.679	1443.4
269.0	272.26	-1.661	26.436	33.123	26.679	1443.4
270.0	273.06	-1.662	26.434	33.120	26.676	1443.4

TEMPERATURE. C

SALINITY 0/00

SIGMAT

DEPTH M

+ = INSITU FREEZING POINT



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3016
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 030477 G.M.T. 2133
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
1.0	.91	-1.799	26.027	32.868	26.475	1437.9
2.0	1.97	-1.799	26.024	32.862	26.471	1437.9
3.0	2.99	-1.799				
4.0	4.03	-1.799	26.029	32.870	26.476	1438.0
5.0	5.03	-1.799	26.030	32.870	26.477	1438.0
6.0	6.02	-1.799	26.031	32.870	26.477	1438.0
7.0	7.05	-1.798	26.033	32.872	26.478	1438.0
8.0	8.08	-1.799	26.035	32.875	26.481	1438.1
9.0	9.13	-1.801	26.039	32.881	26.486	1438.1
10.0	10.13	-1.802	26.042	32.886	26.490	1438.1
11.0	11.10	-1.802	26.044	32.889	26.492	1438.1
12.0	12.15	-1.802	26.045	32.890	26.493	1438.1
13.0	13.18	-1.804	26.049	32.897	26.499	1438.2
14.0	14.18	-1.805	26.051	32.914	26.513	1438.2
15.0	15.17	-1.806	26.066	32.921	26.519	1438.2
16.0	16.19	-1.807	26.071	32.929	26.525	1438.2
17.0	17.24	-1.807	26.074	32.932	26.528	1438.3
18.0	18.25	-1.807	26.076	32.935	26.530	1438.3
19.0	19.23	-1.807	26.079	32.938	26.532	1438.3
20.0	20.27	-1.807	26.083	32.944	26.537	1438.3
21.0	21.29	-1.806	26.088	32.948	26.541	1438.3
22.0	22.31	-1.807	26.089	32.950	26.542	1438.4
23.0	23.28	-1.807	26.094	32.957	26.547	1438.4
24.0	24.33	-1.807	26.103	32.968	26.556	1438.4
25.0	25.36	-1.806	26.106	32.971	26.559	1438.4
26.0	26.33	-1.806	26.107	32.972	26.560	1438.5
27.0	27.35	-1.806	26.109	32.974	26.561	1438.5
28.0	28.41	-1.806	26.110	32.975	26.562	1438.5
29.0	29.40	-1.806	26.111	32.976	26.563	1438.5
30.0	30.39	-1.806	26.112	32.977	26.564	1438.5
31.0	31.39	-1.806	26.114	32.978	26.565	1438.6
32.0	32.45	-1.806	26.114	32.979	26.565	1438.6
33.0	33.47	-1.806	26.115	32.979	26.566	1438.6
34.0	34.48	-1.806	26.117	32.980	26.566	1438.6
35.0	35.46	-1.806	26.118	32.982	26.568	1438.6
36.0	36.47	-1.807	26.120	32.985	26.571	1438.6
37.0	37.50	-1.807	26.122	32.987	26.572	1438.7
38.0	38.54	-1.806	26.128	32.993	26.577	1438.7
39.0	39.56	-1.806	26.130	32.995	26.578	1438.7
40.0	40.54	-1.805	26.131	32.996	26.579	1438.7
41.0	41.54	-1.805	26.132	32.997	26.580	1438.8
42.0	42.56	-1.804	26.134	32.998	26.581	1438.8
43.0	43.62	-1.803	26.136	32.999	26.581	1438.8
44.0	44.63	-1.802	26.141	33.003	26.585	1438.8
45.0	45.62	-1.800	26.145	33.006	26.587	1438.9
46.0	46.61	-1.799	26.146	33.006	26.587	1438.9
47.0	47.64	-1.799	26.146	33.006	26.587	1438.9
48.0	48.68	-1.801	26.147	33.009	26.589	1438.9
49.0	49.69	-1.797	26.154	33.014	26.593	1438.9
50.0	50.67	-1.798	26.155	33.015	26.594	1439.0
51.0	51.68	-1.800	26.155	33.016	26.595	1439.0
52.0	52.73	-1.801	26.155	33.017	26.596	1439.0
53.0	53.76	-1.800	26.156	33.018	26.597	1439.0
54.0	54.77	-1.800	26.157	33.018	26.597	1439.0
55.0	55.73	-1.801	26.158	33.019	26.598	1439.0
56.0	56.79	-1.804	26.157	33.021	26.600	1439.0
57.0	57.82	-1.803	26.159	33.022	26.600	1439.1
58.0	58.84	-1.801	26.161	33.022	26.600	1439.1
59.0	59.81	-1.799	26.163	33.022	26.600	1439.1
60.0	60.87	-1.797	26.166	33.023	26.601	1439.1
61.0	61.91	-1.797	26.167	33.025	26.602	1439.2
62.0	62.87	-1.796	26.168	33.025	26.602	1439.2

EXPERIMENT 3016

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
53.0	63.85	-1.795	26.170	33.025	26.603	1439.2
64.0	64.91	-1.796	26.171	33.026	26.603	1439.2
65.0	65.94	-1.795	26.172	33.026	26.604	1439.2
66.0	66.93	-1.794	26.173	33.026	26.603	1439.3
67.0	67.93	-1.795	26.174	33.028	26.605	1439.3
68.0	68.97	-1.794	26.176	33.030	26.606	1439.3
69.0	69.97	-1.795	26.178	33.032	26.608	1439.3
70.0	70.96	-1.794	26.180	33.033	26.609	1439.3
71.0	72.01	-1.794	26.182	33.036	26.611	1439.4
72.0	73.05	-1.788	26.192	33.042	26.616	1439.4
73.0	74.03	-1.788	26.194	33.044	26.618	1439.4
74.0	75.03	-1.785	26.198	33.046	26.620	1439.5
75.0	76.09	-1.784	26.201	33.048	26.621	1439.5
76.0	77.09	-1.783	26.202	33.048	26.621	1439.5
77.0	78.07	-1.783	26.203	33.049	26.621	1439.5
78.0	79.12	-1.780	26.208	33.052	26.624	1439.6
79.0	80.12	-1.780	26.209	33.053	26.624	1439.6
80.0	81.12	-1.778	26.212	33.054	26.626	1439.6
81.0	82.18	-1.777	26.214	33.056	26.627	1439.6
82.0	83.18	-1.777	26.215	33.056	26.627	1439.6
83.0	84.15	-1.777	26.216	33.057	26.628	1439.7
84.0	85.23	-1.776	26.217	33.057	26.628	1439.7
85.0	86.21	-1.775	26.220	33.060	26.630	1439.7
86.0	87.20	-1.775	26.221	33.060	26.630	1439.7
87.0	88.27	-1.775	26.221	33.060	26.631	1439.7
88.0	89.28	-1.775	26.222	33.060	26.630	1439.8
89.0	90.26	-1.775	26.222	33.060	26.630	1439.8
90.0	91.31	-1.775	26.223	33.061	26.631	1439.8
91.0	92.28	-1.775	26.223	33.060	26.631	1439.8
92.0	93.30	-1.775	26.224	33.061	26.631	1439.8
93.0	94.35	-1.775	26.225	33.061	26.631	1439.8
94.0	95.33	-1.775	26.226	33.062	26.632	1439.9
95.0	96.37	-1.775	26.228	33.064	26.634	1439.9
96.0	97.38	-1.775	26.229	33.065	26.634	1439.9
97.0	98.38	-1.775	26.230	33.066	26.635	1439.9
98.0	99.43	-1.775	26.231	33.066	26.636	1439.9
99.0	100.43	-1.775	26.231	33.067	26.636	1440.0
100.0	101.41	-1.775	26.232	33.066	26.636	1440.0
101.0	102.43	-1.775	26.232	33.066	26.635	1440.0
102.0	103.49	-1.776	26.232	33.067	26.636	1440.0
103.0	104.50	-1.776	26.233	33.067	26.636	1440.0
104.0	105.48	-1.776	26.234	33.067	26.636	1440.0
105.0	106.49	-1.776	26.234	33.067	26.636	1440.1
106.0	107.55	-1.776	26.234	33.067	26.636	1440.1
107.0	108.57	-1.777	26.235	33.068	26.637	1440.1
108.0	109.53	-1.777	26.236	33.069	26.638	1440.1
109.0	110.55	-1.777	26.236	33.069	26.637	1440.1
110.0	111.61	-1.777	26.237	33.070	26.638	1440.1
111.0	112.60	-1.777	26.237	33.069	26.638	1440.1
112.0	113.59	-1.777	26.238	33.070	26.639	1440.2
113.0	114.62	-1.777	26.239	33.071	26.639	1440.2
114.0	115.67	-1.777	26.240	33.072	26.640	1440.2
115.0	116.66	-1.777	26.240	33.072	26.640	1440.2
116.0	117.64	-1.777	26.241	33.072	26.641	1440.2
117.0	118.69	-1.777	26.242	33.072	26.641	1440.3
118.0	119.71	-1.777	26.242	33.073	26.641	1440.3
119.0	120.71	-1.777	26.243	33.073	26.641	1440.3
120.0	121.71	-1.777	26.243	33.073	26.641	1440.3
121.0	122.77	-1.777	26.244	33.073	26.641	1440.3
122.0	123.76	-1.777	26.245	33.074	26.642	1440.3
123.0	124.75	-1.777	26.245	33.074	26.642	1440.4
124.0	125.80	-1.777	26.246	33.074	26.642	1440.4
125.0	126.79	-1.777	26.247	33.074	26.642	1440.4
126.0	127.79	-1.777	26.247	33.075	26.642	1440.4
127.0	128.81	-1.777	26.248	33.074	26.642	1440.4
128.0	129.84	-1.776	26.248	33.074	26.642	1440.4
129.0	130.82	-1.777	26.249	33.075	26.642	1440.5

EXPERIMENT 3016

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
130.0	131.83	-1.777	26.249	33.074	26.642	1440.5
131.0	132.87	-1.777	26.250	33.074	26.642	1440.5
132.0	133.92	-1.776	26.250	33.075	26.642	1440.5
133.0	134.90	-1.776	26.251	33.075	26.642	1440.5
134.0	135.87	-1.777	26.251	33.075	26.643	1440.5
135.0	136.90	-1.776	26.252	33.075	26.642	1440.6
136.0	137.98	-1.777	26.253	33.075	26.643	1440.6
137.0	138.98	-1.777	26.253	33.076	26.643	1440.6
138.0	139.97	-1.777	26.254	33.076	26.643	1440.6
139.0	140.99	-1.777	26.254	33.076	26.644	1440.6
140.0	142.04	-1.777	26.254	33.076	26.643	1440.6
141.0	143.00	-1.777	26.256	33.077	26.644	1440.7
142.0	144.01	-1.777	26.257	33.078	26.645	1440.7
143.0	145.06	-1.776	26.258	33.078	26.645	1440.7
144.0	146.10	-1.776	26.259	33.079	26.646	1440.7
145.0	147.08	-1.776	26.260	33.079	26.646	1440.7
146.0	148.12	-1.776	26.261	33.080	26.647	1440.8
147.0	149.14	-1.776	26.262	33.081	26.647	1440.8
148.0	150.11	-1.776	26.262	33.081	26.647	1440.8
149.0	151.17	-1.776	26.263	33.081	26.648	1440.8
150.0	152.18	-1.776	26.263	33.082	26.648	1440.8
151.0	153.16	-1.776	26.264	33.082	26.648	1440.8
152.0	154.24	-1.776	26.265	33.082	26.648	1440.9
153.0	155.21	-1.775	26.266	33.082	26.648	1440.9
154.0	156.24	-1.775	26.266	33.082	26.648	1440.9
155.0	157.26	-1.775	26.267	33.082	26.648	1440.9
156.0	158.23	-1.775	26.267	33.082	26.648	1440.9
157.0	159.29	-1.775	26.268	33.082	26.648	1440.9
158.0	160.29	-1.775	26.268	33.082	26.648	1441.0
159.0	161.32	-1.775	26.269	33.082	26.648	1441.0
160.0	162.32	-1.774	26.270	33.082	26.648	1441.0
161.0	163.31	-1.775	26.270	33.082	26.648	1441.0
162.0	164.36	-1.775	26.271	33.083	26.649	1441.0
163.0	165.35	-1.774	26.271	33.082	26.648	1441.0
164.0	166.37	-1.775	26.271	33.082	26.648	1441.1
165.0	167.39	-1.774	26.272	33.082	26.648	1441.1
166.0	168.38	-1.774	26.272	33.082	26.649	1441.1
167.0	169.45	-1.774	26.273	33.083	26.649	1441.1
168.0	170.40	-1.774	26.274	33.082	26.648	1441.1
169.0	171.42	-1.774	26.274	33.082	26.648	1441.1
170.0	172.49	-1.774	26.275	33.083	26.649	1441.2
171.0	173.48	-1.774	26.275	33.083	26.649	1441.2
172.0	174.46	-1.774	26.276	33.083	26.649	1441.2
173.0	175.53	-1.774	26.276	33.083	26.649	1441.2
174.0	176.53	-1.774	26.277	33.083	26.649	1441.2
175.0	177.52	-1.774	26.277	33.083	26.649	1441.2
176.0	178.56	-1.774	26.278	33.083	26.649	1441.3
177.0	179.59	-1.774	26.278	33.083	26.649	1441.3
178.0	180.57	-1.774	26.279	33.084	26.650	1441.3
179.0	181.58	-1.775	26.279	33.085	26.651	1441.3
180.0	182.62	-1.776	26.279	33.086	26.651	1441.3
181.0	183.61	-1.777	26.279	33.086	26.651	1441.3
182.0	184.60	-1.776	26.280	33.086	26.651	1441.4
183.0	185.66	-1.777	26.281	33.086	26.652	1441.4
184.0	186.67	-1.776	26.282	33.086	26.652	1441.4
185.0	187.66	-1.775	26.284	33.087	26.652	1441.4
186.0	188.71	-1.773	26.286	33.088	26.653	1441.4
187.0	189.74	-1.773	26.287	33.088	26.653	1441.5
188.0	190.70	-1.773	26.287	33.088	26.653	1441.5
189.0	191.74	-1.773	26.288	33.089	26.654	1441.5
190.0	192.76	-1.773	26.288	33.088	26.653	1441.5
191.0	193.75	-1.774	26.288	33.089	26.654	1441.5
192.0	194.81	-1.774	26.289	33.089	26.654	1441.5
193.0	195.82	-1.774	26.290	33.089	26.654	1441.6
194.0	196.79	-1.774	26.290	33.089	26.654	1441.6
195.0	197.86	-1.774	26.290	33.089	26.654	1441.6
196.0	198.86	-1.774	26.290	33.088	26.653	1441.6

EXPERIMENT 3016

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG. C)	CONC (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
197.0	199.85	-1.774	26.290	33.088	26.653	1441.6
198.0	200.90	-1.774	26.291	33.088	26.653	1441.6
199.0	201.89	-1.773	26.292	33.088	26.653	1441.7
200.0	202.91	-1.773	26.293	33.088	26.653	1441.7
201.0	203.93	-1.771	26.295	33.089	26.654	1441.7
202.0	204.90	-1.770	26.297	33.090	26.655	1441.7
203.0	205.98	-1.770	26.298	33.091	26.655	1441.7
204.0	206.95	-1.770	26.299	33.091	26.656	1441.8
205.0	207.98	-1.770	26.299	33.091	26.656	1441.8
206.0	209.02	-1.770	26.301	33.092	26.657	1441.8
207.0	209.98	-1.769	26.302	33.093	26.657	1441.8
208.0	211.04	-1.768	26.303	33.093	26.657	1441.8
209.0	212.04	-1.768	26.305	33.094	26.657	1441.9
210.0	213.03	-1.766	26.306	33.093	26.657	1441.9
211.0	214.08	-1.766	26.306	33.093	26.657	1441.9
212.0	215.08	-1.766	26.307	33.093	26.657	1441.9
213.0	216.11	-1.765	26.309	33.094	26.657	1441.9
214.0	217.14	-1.763	26.309	33.093	26.657	1442.0
215.0	218.11	-1.761	26.313	33.093	26.657	1442.0
216.0	219.17	-1.761	26.314	33.094	26.658	1442.0
217.0	220.14	-1.760	26.314	33.094	26.658	1442.0
218.0	221.20	-1.758	26.317	33.095	26.658	1442.1
219.0	222.18	-1.757	26.318	33.095	26.658	1442.1
220.0	223.21	-1.757	26.319	33.095	26.659	1442.1
221.0	224.24	-1.756	26.320	33.095	26.659	1442.1
222.0	225.21	-1.755	26.322	33.095	26.659	1442.1
223.0	226.28	-1.750	26.326	33.095	26.658	1442.2
224.0	227.23	-1.748	26.328	33.096	26.659	1442.2
225.0	228.31	-1.747	26.329	33.096	26.659	1442.2
226.0	229.28	-1.746	26.331	33.096	26.659	1442.2
227.0	230.32	-1.743	26.335	33.097	26.660	1442.3
228.0	231.33	-1.737	26.338	33.095	26.658	1442.3
229.0	232.34	-1.732	26.343	33.096	26.659	1442.4
230.0	233.35	-1.731	26.346	33.098	26.660	1442.4
231.0	234.36	-1.729	26.349	33.099	26.661	1442.4
232.0	235.41	-1.723	26.353	33.098	26.660	1442.5
233.0	236.36	-1.722	26.358	33.103	26.664	1442.5
234.0	237.45	-1.718	26.362	33.103	26.664	1442.5
235.0	238.39	-1.717	26.364	33.104	26.665	1442.6
236.0	239.43	-1.711	26.367	33.103	26.664	1442.6
237.0	240.47	-1.710	26.371	33.106	26.666	1442.6
238.0	241.45	-1.706	26.374	33.103	26.664	1442.6
239.0	242.48	-1.699	26.379	33.102	26.663	1442.7
240.0	243.51	-1.686	26.391	33.104	26.665	1442.8
241.0	244.52	-1.685	26.397	33.112	26.671	1442.8
242.0	245.51	-1.685	26.399	33.114	26.672	1442.8
243.0	246.56	-1.684	26.401	33.115	26.673	1442.9
244.0	247.54	-1.677	26.407	33.113	26.672	1442.9
245.0	248.55	-1.671	26.413	33.115	26.673	1442.9
246.0	249.61	-1.669	26.418	33.119	26.676	1443.0
247.0	250.59	-1.663	26.422	33.118	26.675	1443.0
248.0	251.60	-1.664	26.424	33.121	26.677	1443.0
249.0	252.65	-1.664	26.425	33.122	26.678	1443.1
250.0	253.62	-1.664	26.426	33.122	26.679	1443.1
251.0	254.63	-1.660	26.430	33.122	26.678	1443.1
252.0	255.65	-1.659	26.431	33.123	26.679	1443.1
253.0	256.68	-1.660	26.431	33.124	26.680	1443.1
254.0	257.70	-1.661	26.432	33.125	26.680	1443.2
255.0	258.71	-1.659	26.433	33.124	26.679	1443.2
256.0	259.74	-1.659	26.435	33.126	26.681	1443.2
257.0	260.76	-1.658	26.436	33.125	26.681	1443.2
258.0	261.77	-1.658	26.437	33.126	26.681	1443.2
259.0	262.78	-1.656	26.438	33.126	26.681	1443.3
260.0	263.70	-1.655	26.439	33.125	26.681	1443.3
261.0	264.72	-1.655	26.439	33.125	26.680	1443.3
262.0	265.73	-1.655	26.440	33.124	26.680	1443.3
263.0	266.74	-1.655	26.441	33.125	26.681	1443.3

EXPERIMENT 3016

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
264.0	267.74	-1.655	26.442	33.126	26.681	1443.4
265.0	268.79	-1.655	26.442	33.126	26.682	1443.4
266.0	269.81	-1.655	26.443	33.127	26.682	1443.4
267.0	270.80	-1.655	26.443	33.126	26.682	1443.4

TEMPERATURE . C

.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY ‰

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M

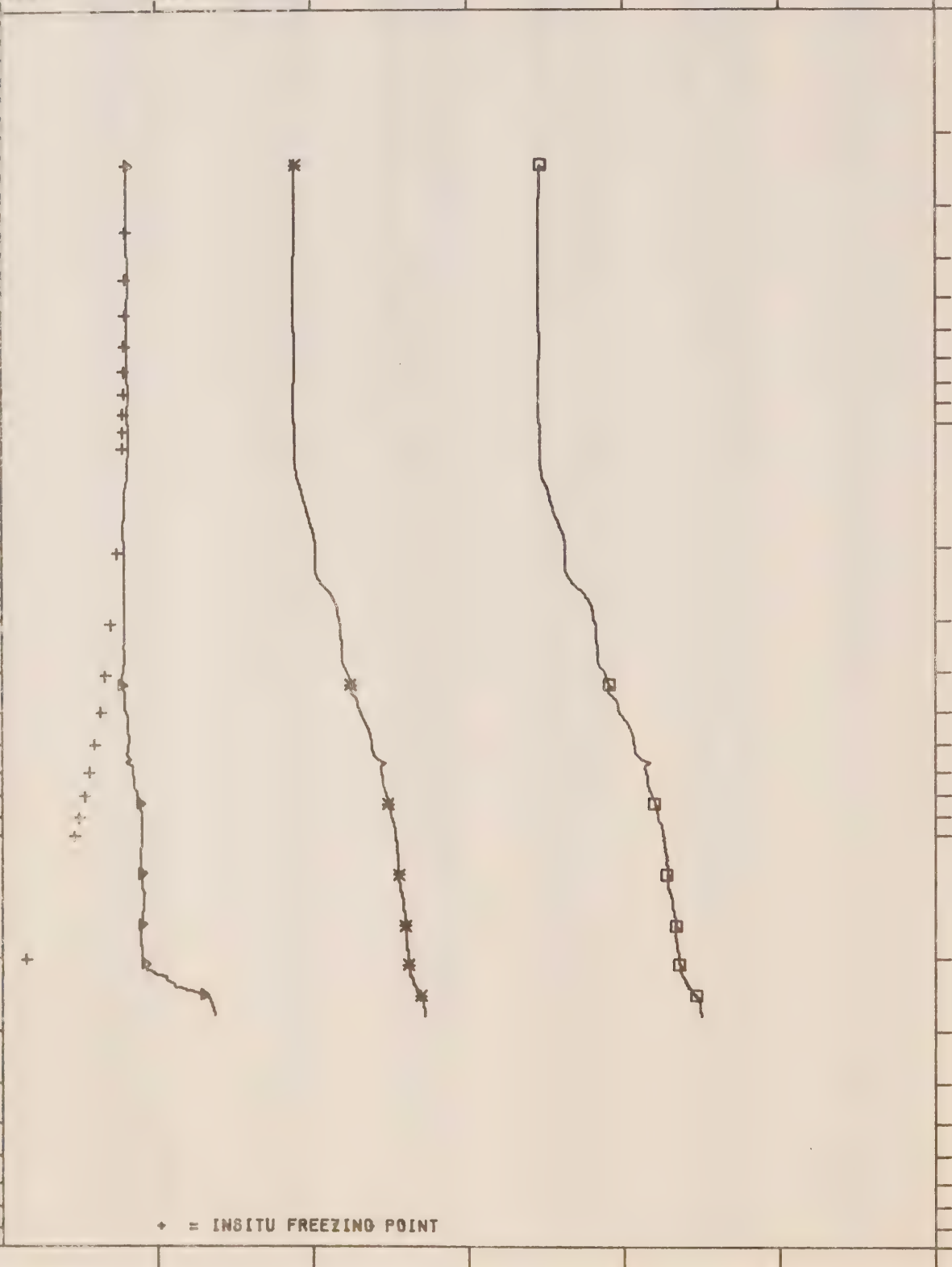
10

100

1000

+ = INSITU FREEZING POINT

EXPERIMENT 3017



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3017
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 030477 G.M.T. 2220
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.39	-1.796	26.028	32.866	26.473	1438.0
3.0	3.47	-1.796	26.027	32.863	26.471	1438.0
4.0	4.53	-1.796	26.027	32.862	26.471	1438.0
5.0	5.52	-1.797	26.027	32.863	26.471	1438.0
6.0	6.55	-1.797	26.028	32.864	26.472	1438.0
7.0	7.56	-1.797	26.029	32.864	26.472	1438.0
8.0	8.57	-1.796	26.029	32.863	26.471	1438.1
9.0	9.57	-1.797	26.029	32.863	26.471	1438.1
10.0	10.59	-1.796	26.030	32.864	26.472	1438.1
11.0	11.60	-1.796	26.031	32.864	26.472	1438.1
12.0	12.60	-1.797	26.032	32.865	26.473	1438.1
13.0	13.61	-1.798	26.033	32.868	26.475	1438.1
14.0	14.64	-1.802	26.037	32.877	26.483	1438.2
15.0	15.67	-1.803	26.042	32.884	26.488	1438.2
16.0	16.69	-1.804	26.045	32.889	26.492	1438.2
17.0	17.72	-1.804	26.049	32.894	26.497	1438.2
18.0	18.74	-1.804	26.055	32.903	26.503	1438.2
19.0	19.75	-1.804	26.058	32.904	26.505	1438.3
20.0	20.76	-1.803	26.059	32.905	26.505	1438.3
21.0	21.75	-1.803	26.060	32.905	26.505	1438.3
22.0	22.76	-1.803	26.060	32.905	26.505	1438.3
23.0	23.77	-1.803	26.064	32.909	26.508	1438.3
24.0	24.78	-1.802	26.072	32.920	26.517	1438.4
25.0	25.81	-1.802	26.081	32.931	26.527	1438.4
26.0	26.85	-1.802	26.089	32.942	26.535	1438.4
27.0	27.88	-1.802	26.093	32.948	26.540	1438.5
28.0	28.90	-1.803	26.095	32.949	26.541	1438.5
29.0	29.88	-1.803	26.096	32.951	26.543	1438.5
30.0	30.89	-1.803	26.098	32.954	26.545	1438.5
31.0	31.88	-1.803	26.099	32.954	26.545	1438.5
32.0	32.89	-1.803	26.100	32.955	26.546	1438.6
33.0	33.90	-1.804	26.101	32.956	26.547	1438.6
34.0	34.92	-1.804	26.102	32.957	26.548	1438.6
35.0	35.93	-1.804	26.103	32.958	26.548	1438.6
36.0	36.94	-1.804	26.104	32.958	26.549	1438.6
37.0	37.97	-1.804	26.104	32.958	26.548	1438.6
38.0	38.99	-1.805	26.105	32.961	26.551	1438.7
39.0	40.00	-1.806	26.109	32.967	26.555	1438.7
40.0	41.03	-1.807	26.111	32.970	26.558	1438.7
41.0	42.04	-1.808	26.113	32.973	26.561	1438.7
42.0	43.06	-1.807	26.116	32.975	26.562	1438.7
43.0	44.08	-1.805	26.118	32.976	26.563	1438.8
44.0	45.11	-1.802	26.121	32.976	26.563	1438.8
45.0	46.12	-1.803	26.126	32.983	26.569	1438.8
46.0	47.13	-1.804	26.130	32.988	26.573	1438.8
47.0	48.16	-1.803	26.131	32.989	26.574	1438.9
48.0	49.18	-1.802	26.133	32.991	26.575	1438.9
49.0	50.20	-1.800	26.137	32.993	26.577	1438.9
50.0	51.22	-1.798	26.143	32.998	26.580	1438.9
51.0	52.22	-1.797	26.146	33.000	26.582	1439.0
52.0	53.21	-1.798	26.148	33.004	26.586	1439.0
53.0	54.22	-1.797	26.152	33.008	26.588	1439.0
54.0	55.24	-1.796	26.154	33.009	26.589	1439.0
55.0	56.26	-1.797	26.157	33.013	26.593	1439.1
56.0	57.24	-1.796	26.159	33.014	26.594	1439.1
57.0	58.27	-1.795	26.161	33.015	26.595	1439.1
58.0	59.30	-1.796	26.161	33.016	26.595	1439.1
59.0	60.33	-1.797	26.161	33.017	26.596	1439.1
60.0	61.36	-1.797	26.161	33.017	26.596	1439.1
61.0	62.35	-1.797	26.162	33.017	26.596	1439.2
62.0	63.38	-1.799	26.163	33.020	26.598	1439.2
63.0	64.39	-1.798	26.166	33.022	26.600	1439.2

EXPERIMENT 3017

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
65.0	65.41	-1.793	26.173	33.027	26.604	1439.2
66.0	66.41	-1.800	26.180	33.043	26.617	1439.2
67.0	67.42	-1.791	26.181	33.034	26.610	1439.3
68.0	68.42	-1.791	26.181	33.034	26.609	1439.3
69.0	69.43	-1.791	26.182	33.034	26.610	1439.3
70.0	70.44	-1.791	26.183	33.035	26.610	1439.3
71.0	71.46	-1.790	26.186	33.037	26.612	1439.4
72.0	72.48	-1.787	26.190	33.038	26.613	1439.4
73.0	73.52	-1.787	26.191	33.039	26.613	1439.4
74.0	74.54	-1.787	26.191	33.038	26.613	1439.4
75.0	75.55	-1.787	26.191	33.038	26.613	1439.5
76.0	76.57	-1.787	26.192	33.039	26.614	1439.5
77.0	77.54	-1.784	26.196	33.041	26.615	1439.5
78.0	78.57	-1.783	26.198	33.043	26.616	1439.5
79.0	79.57	-1.783	26.201	33.045	26.618	1439.5
80.0	80.62	-1.782	26.202	33.046	26.619	1439.6
81.0	81.64	-1.781	26.205	33.048	26.621	1439.6
82.0	82.67	-1.780	26.207	33.049	26.621	1439.6
83.0	83.65	-1.779	26.209	33.050	26.622	1439.6
84.0	84.64	-1.778	26.211	33.051	26.623	1439.7
85.0	85.68	-1.777	26.214	33.052	26.624	1439.7
86.0	86.70	-1.776	26.215	33.053	26.625	1439.7
87.0	87.74	-1.776	26.216	33.054	26.625	1439.7
88.0	88.74	-1.776	26.217	33.054	26.626	1439.7
89.0	89.76	-1.776	26.218	33.055	26.626	1439.8
90.0	90.74	-1.776	26.218	33.055	26.626	1439.8
91.0	91.76	-1.775	26.220	33.056	26.627	1439.8
92.0	92.78	-1.774	26.223	33.059	26.629	1439.8
93.0	93.82	-1.774	26.225	33.060	26.631	1439.8
94.0	94.83	-1.774	26.225	33.061	26.631	1439.9
95.0	95.84	-1.775	26.226	33.061	26.631	1439.9
96.0	96.83	-1.775	26.227	33.062	26.632	1439.9
97.0	97.84	-1.775	26.227	33.063	26.633	1439.9
98.0	98.88	-1.775	26.228	33.063	26.633	1439.9
99.0	99.90	-1.775	26.228	33.063	26.633	1439.9
100.0	100.90	-1.775	26.230	33.064	26.634	1440.0
101.0	101.90	-1.775	26.230	33.064	26.633	1440.0
102.0	102.89	-1.775	26.231	33.065	26.635	1440.0
103.0	103.93	-1.775	26.231	33.064	26.634	1440.0
104.0	104.95	-1.776	26.232	33.065	26.635	1440.0
105.0	105.98	-1.776	26.232	33.065	26.635	1440.0
106.0	106.99	-1.776	26.233	33.066	26.635	1440.1
107.0	108.01	-1.776	26.234	33.066	26.636	1440.1
108.0	109.03	-1.777	26.233	33.066	26.635	1440.1
109.0	110.05	-1.777	26.234	33.067	26.636	1440.1
110.0	111.06	-1.777	26.235	33.068	26.637	1440.1
111.0	112.05	-1.777	26.236	33.069	26.638	1440.1
112.0	113.04	-1.777	26.237	33.069	26.637	1440.2
113.0	114.05	-1.777	26.238	33.069	26.638	1440.2
114.0	115.07	-1.777	26.237	33.068	26.637	1440.2
115.0	116.08	-1.777	26.238	33.068	26.637	1440.2
116.0	117.15	-1.776	26.239	33.069	26.637	1440.2
117.0	118.15	-1.777	26.240	33.069	26.638	1440.2
118.0	119.18	-1.776	26.241	33.070	26.638	1440.3
119.0	120.20	-1.776	26.241	33.069	26.638	1440.3
120.0	121.21	-1.776	26.241	33.069	26.638	1440.3
121.0	122.21	-1.776	26.242	33.069	26.638	1440.3
122.0	123.19	-1.775	26.243	33.069	26.638	1440.3
123.0	124.20	-1.775	26.243	33.070	26.638	1440.3
124.0	125.22	-1.775	26.244	33.070	26.638	1440.4
125.0	126.24	-1.776	26.244	33.070	26.638	1440.4
126.0	127.29	-1.775	26.245	33.070	26.638	1440.4
127.0	128.31	-1.775	26.246	33.070	26.639	1440.4
128.0	129.31	-1.775	26.246	33.070	26.639	1440.4
129.0	130.32	-1.775	26.247	33.070	26.639	1440.4
130.0	131.31	-1.775	26.247	33.071	26.639	1440.5
131.0	132.32	-1.775	26.248	33.071	26.639	1440.5

EXPERIMENT 3017

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/g)	SIGMAT	SOUND (M/SEC)
131.0	133.34	-1.775	26.249	33.071	26.639	1440.5
132.0	134.41	-1.775	26.249	33.071	26.640	1440.5
133.0	135.42	-1.775	26.250	33.072	26.640	1440.5
134.0	136.42	-1.773	26.253	33.073	26.641	1440.6
135.0	137.40	-1.772	26.255	33.073	26.641	1440.6
136.0	138.42	-1.771	26.257	33.075	26.643	1440.6
137.0	139.44	-1.773	26.256	33.076	26.643	1440.6
138.0	140.49	-1.773	26.257	33.076	26.643	1440.6
139.0	141.49	-1.772	26.258	33.077	26.644	1440.7
140.0	142.47	-1.771	26.260	33.077	26.644	1440.7
141.0	143.49	-1.772	26.260	33.078	26.645	1440.7
142.0	144.51	-1.772	26.261	33.078	26.645	1440.7
143.0	145.55	-1.772	26.261	33.078	26.645	1440.7
144.0	146.58	-1.772	26.262	33.078	26.645	1440.7
145.0	147.57	-1.772	26.263	33.078	26.645	1440.8
146.0	148.55	-1.772	26.263	33.078	26.645	1440.8
147.0	149.58	-1.772	26.263	33.078	26.645	1440.8
148.0	150.60	-1.772	26.264	33.079	26.646	1440.8
149.0	151.65	-1.772	26.265	33.079	26.646	1440.8
150.0	152.66	-1.773	26.265	33.080	26.646	1440.8
151.0	153.65	-1.775	26.265	33.081	26.647	1440.9
152.0	154.64	-1.774	26.265	33.081	26.647	1440.9
153.0	155.70	-1.774	26.266	33.081	26.647	1440.9
154.0	156.71	-1.774	26.266	33.080	26.647	1440.9
155.0	157.72	-1.774	26.268	33.082	26.648	1440.9
156.0	158.71	-1.775	26.268	33.082	26.648	1440.9
157.0	159.75	-1.775	26.268	33.082	26.648	1441.0
158.0	160.76	-1.776	26.269	33.083	26.649	1441.0
159.0	161.77	-1.776	26.269	33.083	26.649	1441.0
160.0	162.78	-1.777	26.269	33.084	26.650	1441.0
161.0	163.82	-1.777	26.270	33.084	26.650	1441.0
162.0	164.84	-1.776	26.270	33.083	26.649	1441.0
163.0	165.82	-1.776	26.270	33.083	26.649	1441.0
164.0	166.85	-1.777	26.271	33.083	26.649	1441.1
165.0	167.89	-1.776	26.271	33.083	26.649	1441.1
166.0	168.87	-1.776	26.271	33.083	26.649	1441.1
167.0	169.87	-1.776	26.272	33.083	26.649	1441.1
168.0	170.92	-1.777	26.272	33.083	26.649	1441.1
169.0	171.93	-1.777	26.273	33.083	26.649	1441.1
170.0	172.92	-1.776	26.273	33.083	26.649	1441.2
171.0	173.92	-1.776	26.274	33.083	26.649	1441.2
172.0	174.91	-1.776	26.274	33.083	26.649	1441.2
173.0	175.98	-1.776	26.275	33.083	26.649	1441.2
174.0	176.99	-1.777	26.275	33.083	26.649	1441.2
175.0	178.02	-1.777	26.276	33.084	26.650	1441.2
176.0	179.02	-1.777	26.276	33.084	26.650	1441.3
177.0	180.04	-1.777	26.276	33.084	26.650	1441.3
178.0	181.02	-1.777	26.277	33.084	26.650	1441.3
179.0	182.04	-1.777	26.278	33.084	26.650	1441.3
180.0	183.07	-1.776	26.278	33.084	26.650	1441.3
181.0	184.11	-1.776	26.279	33.084	26.650	1441.3
182.0	185.12	-1.776	26.279	33.084	26.650	1441.4
183.0	186.10	-1.776	26.280	33.084	26.650	1441.4
184.0	187.11	-1.776	26.281	33.085	26.650	1441.4
185.0	188.13	-1.775	26.283	33.085	26.651	1441.4
186.0	189.18	-1.775	26.284	33.086	26.652	1441.4
187.0	190.18	-1.775	26.284	33.086	26.652	1441.5
188.0	191.19	-1.775	26.285	33.086	26.652	1441.5
189.0	192.17	-1.775	26.285	33.086	26.652	1441.5
190.0	193.21	-1.775	26.285	33.086	26.652	1441.5
191.0	194.25	-1.775	26.286	33.087	26.652	1441.5
192.0	195.27	-1.775	26.286	33.086	26.652	1441.5
193.0	196.26	-1.775	26.287	33.087	26.652	1441.6
194.0	197.25	-1.775	26.287	33.087	26.652	1441.6
195.0	198.27	-1.775	26.288	33.086	26.652	1441.6
196.0	199.32	-1.775	26.288	33.087	26.652	1441.6
197.0	200.34	-1.775	26.289	33.087	26.652	1441.6

EXPERIMENT 3017

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/g)	SIGMAT	SOUND (M/SEC)
198.0	201.33	-1.775	26.289	33.087	26.652	1441.6
199.0	202.33	-1.772	26.293	33.088	26.653	1441.7
200.0	203.36	-1.772	26.294	33.089	26.654	1441.7
201.0	204.40	-1.771	26.296	33.089	26.654	1441.7
202.0	205.39	-1.770	26.297	33.090	26.654	1441.7
203.0	206.39	-1.769	26.298	33.090	26.654	1441.8
204.0	207.40	-1.769	26.299	33.090	26.655	1441.8
205.0	208.46	-1.769	26.300	33.091	26.655	1441.8
206.0	209.46	-1.769	26.301	33.091	26.655	1441.8
207.0	210.45	-1.768	26.301	33.091	26.655	1441.8
208.0	211.46	-1.768	26.302	33.091	26.656	1441.8
209.0	212.51	-1.767	26.303	33.091	26.655	1441.9
210.0	213.51	-1.760	26.309	33.089	26.654	1441.9
211.0	214.50	-1.759	26.312	33.092	26.656	1441.9
212.0	215.53	-1.756	26.313	33.091	26.655	1442.0
213.0	216.57	-1.754	26.316	33.092	26.656	1442.0
214.0	217.56	-1.753	26.318	33.093	26.657	1442.0
215.0	218.56	-1.750	26.320	33.092	26.656	1442.0
216.0	219.61	-1.742	26.328	33.094	26.657	1442.1
217.0	220.60	-1.738	26.332	33.094	26.657	1442.1
218.0	221.60	-1.736	26.336	33.096	26.659	1442.2
219.0	222.64	-1.736	26.337	33.098	26.660	1442.2
220.0	223.68	-1.735	26.339	33.098	26.660	1442.2
221.0	224.65	-1.734	26.340	33.099	26.661	1442.2
222.0	225.67	-1.732	26.342	33.098	26.661	1442.3
223.0	226.71	-1.730	26.345	33.099	26.661	1442.3
224.0	227.72	-1.727	26.347	33.099	26.661	1442.3
225.0	228.69	-1.726	26.350	33.101	26.663	1442.3
226.0	229.73	-1.724	26.353	33.101	26.663	1442.4
227.0	230.76	-1.723	26.355	33.102	26.664	1442.4
228.0	231.73	-1.722	26.356	33.104	26.665	1442.4
229.0	232.78	-1.722	26.357	33.104	26.665	1442.4
230.0	233.80	-1.721	26.358	33.104	26.665	1442.5
231.0	234.80	-1.712	26.367	33.105	26.666	1442.5
232.0	235.82	-1.705	26.374	33.106	26.667	1442.6
233.0	236.86	-1.705	26.376	33.108	26.668	1442.6
234.0	237.84	-1.700	26.380	33.108	26.668	1442.6
235.0	238.86	-1.692	26.388	33.110	26.669	1442.7
236.0	239.89	-1.690	26.391	33.111	26.670	1442.7
237.0	240.87	-1.685	26.395	33.111	26.669	1442.7
238.0	241.87	-1.683	26.398	33.113	26.671	1442.8
239.0	242.90	-1.681	26.402	33.114	26.672	1442.8
240.0	243.93	-1.676	26.407	33.115	26.673	1442.8
241.0	244.96	-1.672	26.412	33.117	26.675	1442.9
242.0	245.95	-1.669	26.416	33.119	26.676	1442.9
243.0	246.94	-1.668	26.418	33.120	26.676	1442.9
244.0	247.98	-1.667	26.419	33.120	26.677	1443.0
245.0	249.01	-1.667	26.420	33.120	26.677	1443.0
246.0	250.02	-1.666	26.422	33.121	26.677	1443.0
247.0	251.01	-1.664	26.423	33.121	26.677	1443.0
248.0	252.01	-1.664	26.424	33.121	26.678	1443.0
249.0	253.05	-1.665	26.424	33.121	26.678	1443.1
250.0	254.10	-1.664	26.425	33.122	26.678	1443.1
251.0	255.10	-1.664	26.426	33.122	26.678	1443.1
252.0	256.07	-1.663	26.427	33.122	26.678	1443.1
253.0	257.10	-1.662	26.429	33.122	26.679	1443.1
254.0	258.14	-1.662	26.429	33.122	26.678	1443.2
255.0	259.17	-1.662	26.429	33.122	26.678	1443.2
256.0	260.14	-1.661	26.431	33.123	26.679	1443.2
257.0	261.15	-1.661	26.432	33.123	26.679	1443.2
258.0	262.18	-1.661	26.432	33.123	26.679	1443.2
259.0	263.22	-1.661	26.433	33.123	26.679	1443.2
260.0	264.20	-1.660	26.434	33.123	26.679	1443.3
261.0	265.21	-1.660	26.435	33.123	26.679	1443.3
262.0	266.25	-1.661	26.435	33.123	26.679	1443.3
263.0	267.27	-1.659	26.437	33.123	26.679	1443.3
264.0	268.25	-1.658	26.438	33.124	26.680	1443.3

EXPERIMENT 3017

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.26	-1.658	26.438	33.124	26.680	1443.4
266.0	270.33	-1.658	26.439	33.124	26.680	1443.4
267.0	271.31	-1.659	26.439	33.124	26.680	1443.4
268.0	272.31	-1.658	26.439	33.124	26.680	1443.4
269.0	273.33	-1.658	26.441	33.124	26.680	1443.4

EXPERIMENT 3018

TEMPERATURE. C

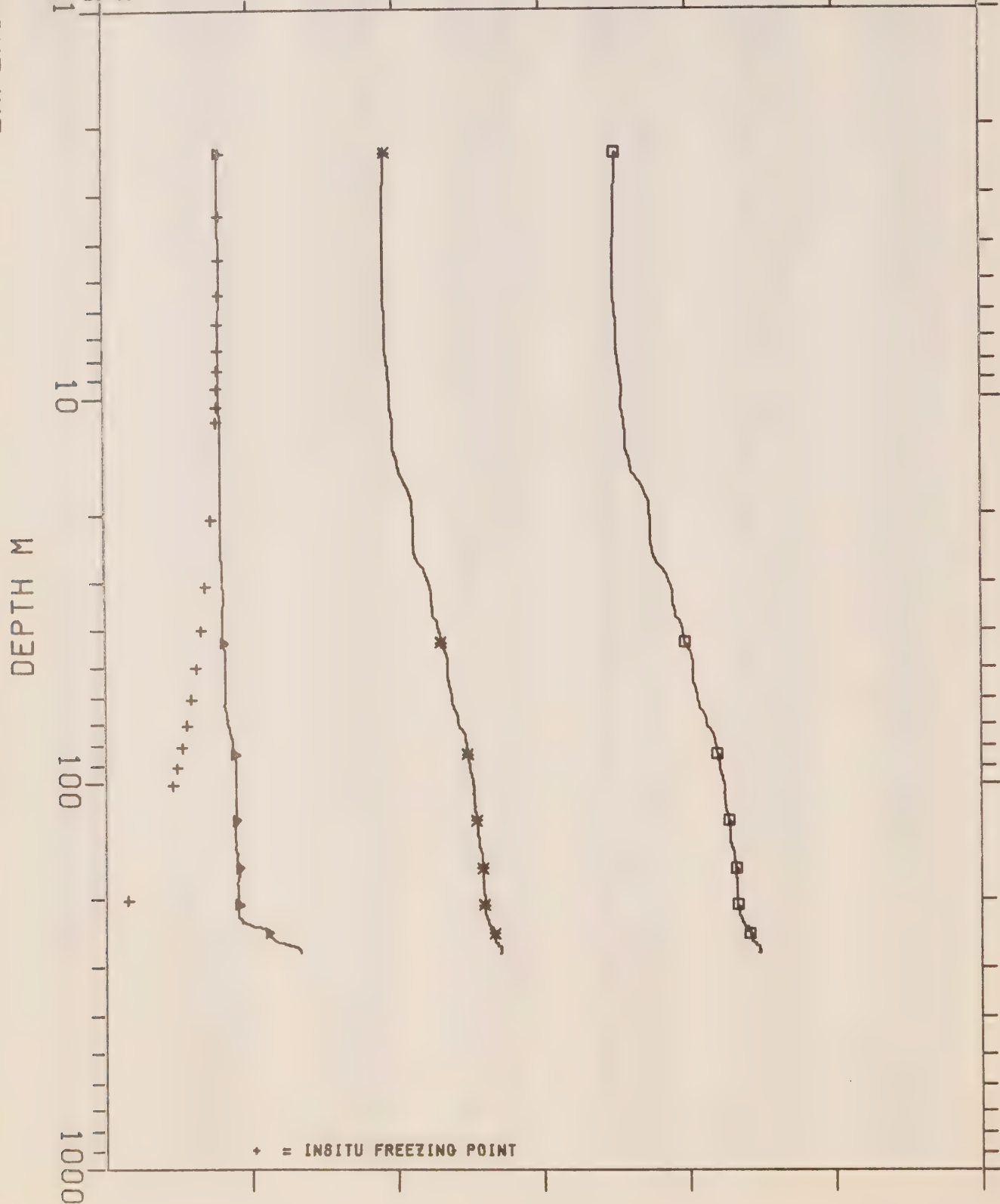
△ -2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY 0/00

□ 32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

* 26.00 26.25 26.50 26.75 27.00 27.25 27.50



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3018
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 030477 G.M.T. 2323
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.37	-1.803	26.031	32.877	26.483	1437.9
3.0	3.42	-1.802	26.031	32.874	26.480	1438.0
4.0	4.47	-1.801	26.031	32.873	26.480	1438.0
5.0	5.49	-1.801	26.032	32.874	26.480	1438.0
6.0	6.52	-1.802	26.034	32.877	26.483	1438.0
7.0	7.57	-1.802	26.035	32.878	26.484	1438.0
8.0	8.57	-1.802	26.040	32.884	26.488	1438.1
9.0	9.55	-1.801	26.042	32.886	26.490	1438.1
10.0	10.61	-1.801	26.042	32.885	26.489	1438.1
11.0	11.63	-1.801	26.047	32.891	26.494	1438.1
12.0	12.62	-1.800	26.048	32.892	26.494	1438.2
13.0	13.67	-1.800	26.049	32.893	26.495	1438.2
14.0	14.67	-1.800	26.056	32.900	26.502	1438.2
15.0	15.66	-1.799	26.059	32.904	26.504	1438.2
16.0	16.72	-1.800	26.068	32.917	26.515	1438.3
17.0	17.71	-1.800	26.075	32.926	26.522	1438.3
18.0	18.71	-1.801	26.079	32.931	26.527	1438.3
19.0	19.78	-1.801	26.080	32.932	26.528	1438.3
20.0	20.74	-1.800	26.082	32.934	26.529	1438.3
21.0	21.76	-1.800	26.083	32.934	26.529	1438.4
22.0	22.78	-1.800	26.083	32.935	26.529	1438.4
23.0	23.76	-1.800	26.085	32.936	26.530	1438.4
24.0	24.83	-1.800	26.086	32.937	26.531	1438.4
25.0	25.81	-1.799	26.089	32.940	26.534	1438.4
26.0	26.83	-1.799	26.094	32.945	26.538	1438.5
27.0	27.85	-1.797	26.103	32.956	26.546	1438.5
28.0	28.85	-1.798	26.107	32.962	26.551	1438.5
29.0	29.90	-1.798	26.111	32.965	26.554	1438.6
30.0	30.94	-1.796	26.115	32.969	26.557	1438.6
31.0	31.88	-1.796	26.118	32.973	26.560	1438.6
32.0	32.93	-1.796	26.119	32.973	26.560	1438.6
33.0	33.96	-1.796	26.120	32.974	26.561	1438.6
34.0	34.95	-1.796	26.121	32.975	26.562	1438.7
35.0	35.94	-1.797	26.122	32.976	26.563	1438.7
36.0	36.99	-1.797	26.122	32.976	26.563	1438.7
37.0	38.03	-1.797	26.130	32.986	26.571	1438.7
38.0	39.00	-1.797	26.130	32.986	26.571	1438.7
39.0	40.03	-1.797	26.132	32.989	26.573	1438.8
40.0	41.07	-1.797	26.134	32.990	26.574	1438.8
41.0	42.08	-1.797	26.136	32.992	26.576	1438.8
42.0	43.06	-1.796	26.137	32.993	26.577	1438.8
43.0	44.11	-1.795	26.142	32.998	26.580	1438.8
44.0	45.13	-1.793	26.146	33.001	26.583	1438.9
45.0	46.10	-1.793	26.149	33.005	26.586	1438.9
46.0	47.14	-1.794	26.150	33.006	26.587	1438.9
47.0	48.17	-1.793	26.151	33.006	26.587	1438.9
48.0	49.14	-1.793	26.152	33.007	26.588	1438.9
49.0	50.17	-1.793	26.152	33.007	26.587	1439.0
50.0	51.22	-1.793	26.153	33.007	26.588	1439.0
51.0	52.19	-1.793	26.153	33.006	26.587	1439.0
52.0	53.21	-1.793	26.155	33.008	26.588	1439.0
53.0	54.26	-1.793	26.156	33.009	26.589	1439.0
54.0	55.23	-1.793	26.157	33.009	26.590	1439.1
55.0	56.25	-1.793	26.159	33.011	26.591	1439.1
56.0	57.29	-1.793	26.159	33.012	26.592	1439.1
57.0	58.28	-1.793	26.162	33.015	26.594	1439.1
58.0	59.33	-1.793	26.163	33.016	26.595	1439.1
59.0	60.36	-1.793	26.163	33.016	26.595	1439.1
60.0	61.34	-1.794	26.164	33.017	26.596	1439.2
61.0	62.35	-1.794	26.165	33.017	26.596	1439.2
62.0	63.38	-1.793	26.167	33.019	26.597	1439.2
63.0	64.35	-1.793	26.169	33.021	26.599	1439.2

EXPERIMENT 3018

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.40	-1.791	26.174	33.025	26.602	1439.2
65.0	66.41	-1.789	26.178	33.028	26.605	1439.3
66.0	67.38	-1.789	26.179	33.029	26.606	1439.3
67.0	68.44	-1.789	26.180	33.029	26.606	1439.3
68.0	69.44	-1.789	26.180	33.029	26.606	1439.3
69.0	70.45	-1.788	26.182	33.030	26.607	1439.4
70.0	71.49	-1.786	26.185	33.032	26.608	1439.4
71.0	72.45	-1.785	26.191	33.038	26.613	1439.4
72.0	73.51	-1.785	26.193	33.039	26.614	1439.4
73.0	74.51	-1.782	26.198	33.043	26.617	1439.5
74.0	75.51	-1.782	26.199	33.044	26.617	1439.5
75.0	76.54	-1.780	26.201	33.045	26.618	1439.5
76.0	77.52	-1.779	26.203	33.045	26.619	1439.5
77.0	78.57	-1.779	26.204	33.046	26.619	1439.5
78.0	79.57	-1.779	26.205	33.047	26.620	1439.6
79.0	80.57	-1.779	26.206	33.047	26.620	1439.6
80.0	81.60	-1.778	26.207	33.047	26.620	1439.6
81.0	82.59	-1.778	26.209	33.048	26.621	1439.6
82.0	83.65	-1.777	26.210	33.049	26.622	1439.6
83.0	84.64	-1.777	26.211	33.050	26.622	1439.7
84.0	85.67	-1.776	26.212	33.050	26.623	1439.7
85.0	86.68	-1.776	26.214	33.051	26.623	1439.7
86.0	87.68	-1.776	26.215	33.052	26.624	1439.7
87.0	88.73	-1.775	26.216	33.052	26.624	1439.7
88.0	89.69	-1.776	26.217	33.053	26.625	1439.8
89.0	90.74	-1.775	26.218	33.053	26.625	1439.8
90.0	91.72	-1.775	26.218	33.053	26.625	1439.8
91.0	92.79	-1.775	26.219	33.054	26.626	1439.8
92.0	93.74	-1.775	26.220	33.055	26.627	1439.8
93.0	94.81	-1.776	26.221	33.056	26.627	1439.8
94.0	95.70	-1.776	26.222	33.057	26.628	1439.9
95.0	96.83	-1.776	26.224	33.058	26.629	1439.9
96.0	97.84	-1.776	26.224	33.058	26.629	1439.9
97.0	98.82	-1.776	26.226	33.060	26.631	1439.9
98.0	99.85	-1.776	26.226	33.060	26.631	1439.9
99.0	100.85	-1.776	26.227	33.061	26.631	1440.0
100.0	101.85	-1.776	26.228	33.062	26.632	1440.0
101.0	102.90	-1.776	26.229	33.063	26.633	1440.0
102.0	103.87	-1.776	26.229	33.062	26.632	1440.0
103.0	104.93	-1.775	26.230	33.063	26.633	1440.0
104.0	105.90	-1.775	26.230	33.061	26.631	1440.0
105.0	106.94	-1.775	26.230	33.061	26.632	1440.1
106.0	107.94	-1.775	26.233	33.063	26.633	1440.1
107.0	108.93	-1.775	26.232	33.062	26.632	1440.1
108.0	109.99	-1.775	26.232	33.062	26.632	1440.1
109.0	110.99	-1.775	26.233	33.061	26.632	1440.1
110.0	111.98	-1.775	26.234	33.063	26.633	1440.1
111.0	113.02	-1.775	26.234	33.063	26.633	1440.2
112.0	114.02	-1.774	26.236	33.064	26.634	1440.2
113.0	115.01	-1.774	26.236	33.063	26.633	1440.2
114.0	116.06	-1.774	26.237	33.064	26.633	1440.2
115.0	117.07	-1.774	26.236	33.062	26.632	1440.2
116.0	118.05	-1.774	26.239	33.066	26.635	1440.2
117.0	119.11	-1.774	26.240	33.066	26.635	1440.3
118.0	120.10	-1.774	26.241	33.067	26.636	1440.3
119.0	121.12	-1.774	26.241	33.067	26.636	1440.3
120.0	122.15	-1.775	26.241	33.068	26.637	1440.3
121.0	123.11	-1.775	26.242	33.068	26.637	1440.3
122.0	124.15	-1.776	26.242	33.068	26.637	1440.3
123.0	125.18	-1.776	26.243	33.069	26.637	1440.4
124.0	126.16	-1.776	26.243	33.068	26.637	1440.4
125.0	127.21	-1.776	26.244	33.069	26.637	1440.4
126.0	128.19	-1.776	26.244	33.069	26.637	1440.4
127.0	129.22	-1.776	26.244	33.069	26.638	1440.4
128.0	130.26	-1.776	26.245	33.069	26.638	1440.4
129.0	131.22	-1.776	26.245	33.069	26.638	1440.5
130.0	132.27	-1.777	26.246	33.069	26.638	1440.5

EXPERIMENT 3018

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/g)	SIGMAT	SOUND (M/SEC)
131.0	133.28	-1.777	26.246	33.069	26.638	1440.5
132.0	134.27	-1.777	26.247	33.070	26.638	1440.5
133.0	135.33	-1.777	26.247	33.070	26.639	1440.5
134.0	136.30	-1.777	26.248	33.070	26.639	1440.5
135.0	137.33	-1.777	26.248	33.071	26.639	1440.6
136.0	138.35	-1.777	26.249	33.071	26.639	1440.6
137.0	139.33	-1.777	26.250	33.071	26.639	1440.6
138.0	140.39	-1.776	26.251	33.071	26.639	1440.6
139.0	141.36	-1.776	26.251	33.071	26.639	1440.6
140.0	142.40	-1.776	26.252	33.071	26.639	1440.6
141.0	143.43	-1.775	26.254	33.071	26.640	1440.7
142.0	144.41	-1.776	26.254	33.073	26.641	1440.7
143.0	145.46	-1.777	26.254	33.073	26.641	1440.7
144.0	146.45	-1.778	26.255	33.075	26.642	1440.7
145.0	147.46	-1.776	26.257	33.075	26.643	1440.7
146.0	148.49	-1.774	26.259	33.076	26.643	1440.8
147.0	149.46	-1.774	26.260	33.076	26.644	1440.8
148.0	150.52	-1.773	26.261	33.077	26.644	1440.8
149.0	151.49	-1.773	26.262	33.077	26.644	1440.8
150.0	152.55	-1.773	26.263	33.077	26.644	1440.8
151.0	153.54	-1.774	26.263	33.077	26.645	1440.8
152.0	154.55	-1.774	26.263	33.077	26.644	1440.9
153.0	155.60	-1.775	26.264	33.079	26.645	1440.9
154.0	156.57	-1.774	26.265	33.078	26.645	1440.9
155.0	157.63	-1.775	26.265	33.078	26.645	1440.9
156.0	158.58	-1.773	26.267	33.080	26.646	1440.9
157.0	159.64	-1.771	26.270	33.080	26.647	1441.0
158.0	160.62	-1.770	26.271	33.080	26.646	1441.0
159.0	161.66	-1.770	26.271	33.080	26.647	1441.0
160.0	162.65	-1.770	26.272	33.080	26.646	1441.0
161.0	163.70	-1.770	26.272	33.080	26.647	1441.0
162.0	164.68	-1.770	26.272	33.080	26.647	1441.1
163.0	165.73	-1.770	26.273	33.080	26.647	1441.1
164.0	166.70	-1.770	26.273	33.080	26.647	1441.1
165.0	167.73	-1.770	26.274	33.080	26.647	1441.1
166.0	168.73	-1.770	26.274	33.080	26.647	1441.1
167.0	169.76	-1.770	26.275	33.081	26.647	1441.1
168.0	170.75	-1.770	26.275	33.080	26.647	1441.2
169.0	171.80	-1.770	26.276	33.081	26.647	1441.2
170.0	172.79	-1.771	26.276	33.081	26.647	1441.2
171.0	173.82	-1.773	26.275	33.081	26.648	1441.2
172.0	174.80	-1.772	26.276	33.081	26.647	1441.2
173.0	175.83	-1.773	26.276	33.082	26.648	1441.2
174.0	176.86	-1.774	26.276	33.082	26.648	1441.2
175.0	177.83	-1.774	26.276	33.081	26.648	1441.3
176.0	178.88	-1.774	26.277	33.082	26.648	1441.3
177.0	179.87	-1.774	26.277	33.082	26.648	1441.3
178.0	180.89	-1.774	26.278	33.082	26.648	1441.3
179.0	181.93	-1.774	26.278	33.082	26.648	1441.3
180.0	182.88	-1.773	26.279	33.082	26.648	1441.3
181.0	183.96	-1.774	26.279	33.082	26.648	1441.4
182.0	184.93	-1.773	26.280	33.082	26.648	1441.4
183.0	185.95	-1.773	26.281	33.082	26.648	1441.4
184.0	187.01	-1.773	26.282	33.082	26.648	1441.4
185.0	187.96	-1.773	26.282	33.082	26.648	1441.4
186.0	189.04	-1.773	26.283	33.082	26.648	1441.4
187.0	190.00	-1.772	26.283	33.082	26.649	1441.5
188.0	191.05	-1.773	26.284	33.082	26.649	1441.5
189.0	192.04	-1.772	26.284	33.082	26.649	1441.5
190.0	193.04	-1.773	26.284	33.083	26.649	1441.5
191.0	194.07	-1.773	26.285	33.083	26.649	1441.5
192.0	195.07	-1.773	26.285	33.083	26.649	1441.5
193.0	196.12	-1.773	26.286	33.083	26.649	1441.6
194.0	197.08	-1.773	26.286	33.083	26.649	1441.6
195.0	198.15	-1.773	26.287	33.083	26.649	1441.6
196.0	199.12	-1.773	26.287	33.083	26.649	1441.6
197.0	200.16	-1.773	26.287	33.083	26.649	1441.6

EXPERIMENT 3018

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.18	-1.773	26.288	33.083	26.649	1441.6
199.0	202.16	-1.772	26.289	33.083	26.649	1441.7
200.0	203.20	-1.772	26.289	33.083	26.649	1441.7
201.0	204.18	-1.772	26.290	33.083	26.649	1441.7
202.0	205.24	-1.772	26.291	33.083	26.649	1441.7
203.0	206.21	-1.772	26.291	33.084	26.649	1441.7
204.0	207.26	-1.772	26.292	33.083	26.649	1441.7
205.0	208.23	-1.772	26.292	33.084	26.649	1441.8
206.0	209.29	-1.772	26.293	33.084	26.649	1441.8
207.0	210.26	-1.773	26.293	33.084	26.650	1441.8
208.0	211.32	-1.773	26.294	33.085	26.651	1441.8
209.0	212.29	-1.773	26.294	33.085	26.651	1441.8
210.0	213.32	-1.773	26.295	33.085	26.651	1441.8
211.0	214.35	-1.773	26.295	33.085	26.651	1441.9
212.0	215.33	-1.773	26.296	33.085	26.651	1441.9
213.0	216.38	-1.773	26.296	33.085	26.651	1441.9
214.0	217.36	-1.773	26.297	33.086	26.651	1441.9
215.0	218.41	-1.773	26.298	33.086	26.652	1441.9
216.0	219.38	-1.773	26.298	33.086	26.652	1441.9
217.0	220.45	-1.773	26.299	33.087	26.652	1442.0
218.0	221.42	-1.771	26.302	33.088	26.653	1442.0
219.0	222.48	-1.770	26.304	33.089	26.654	1442.0
220.0	223.43	-1.768	26.306	33.089	26.654	1442.0
221.0	224.50	-1.766	26.308	33.090	26.654	1442.1
222.0	225.47	-1.765	26.310	33.090	26.655	1442.1
223.0	226.51	-1.764	26.311	33.090	26.655	1442.1
224.0	227.49	-1.764	26.312	33.091	26.655	1442.1
225.0	228.54	-1.761	26.316	33.091	26.656	1442.2
226.0	229.51	-1.755	26.321	33.092	26.656	1442.2
227.0	230.58	-1.753	26.324	33.093	26.656	1442.2
228.0	231.54	-1.750	26.327	33.094	26.658	1442.3
229.0	232.61	-1.748	26.330	33.094	26.658	1442.3
230.0	233.56	-1.744	26.334	33.096	26.659	1442.3
231.0	234.62	-1.735	26.345	33.101	26.663	1442.4
232.0	235.58	-1.726	26.353	33.101	26.663	1442.5
233.0	236.67	-1.726	26.354	33.102	26.663	1442.5
234.0	237.61	-1.725	26.355	33.102	26.663	1442.5
235.0	238.66	-1.723	26.358	33.104	26.665	1442.5
236.0	239.65	-1.723	26.356	33.098	26.660	1442.5
237.0	240.70	-1.722	26.361	33.104	26.665	1442.6
238.0	241.66	-1.722	26.361	33.104	26.665	1442.6
239.0	242.71	-1.722	26.362	33.105	26.666	1442.6
240.0	243.70	-1.721	26.364	33.105	26.666	1442.6
241.0	244.70	-1.720	26.364	33.105	26.666	1442.6
242.0	245.75	-1.720	26.365	33.105	26.666	1442.7
243.0	246.72	-1.719	26.367	33.106	26.666	1442.7
244.0	247.74	-1.719	26.367	33.106	26.666	1442.7
245.0	248.78	-1.718	26.369	33.106	26.667	1442.7
246.0	249.75	-1.715	26.372	33.106	26.667	1442.7
247.0	250.81	-1.713	26.374	33.107	26.668	1442.8
248.0	251.78	-1.712	26.377	33.108	26.668	1442.8
249.0	252.81	-1.710	26.378	33.108	26.668	1442.8
250.0	253.84	-1.709	26.380	33.109	26.668	1442.8
251.0	254.80	-1.709	26.381	33.108	26.668	1442.9
252.0	255.85	-1.708	26.382	33.109	26.669	1442.9
253.0	256.87	-1.701	26.390	33.111	26.671	1442.9
254.0	257.84	-1.697	26.393	33.111	26.670	1443.0
255.0	258.85	-1.693	26.398	33.114	26.672	1443.0
256.0	259.89	-1.691	26.400	33.113	26.672	1443.0
257.0	260.91	-1.684	26.407	33.115	26.673	1443.1
258.0	261.89	-1.684	26.408	33.116	26.674	1443.1
259.0	262.88	-1.677	26.418	33.120	26.677	1443.2
260.0	263.90	-1.672	26.422	33.120	26.677	1443.2
261.0	264.92	-1.670	26.425	33.121	26.677	1443.2
262.0	265.95	-1.668	26.426	33.120	26.677	1443.3
263.0	266.96	-1.668	26.426	33.120	26.677	1443.3
264.0	267.97	-1.666	26.429	33.121	26.677	1443.3

EXPERIMENT 3018

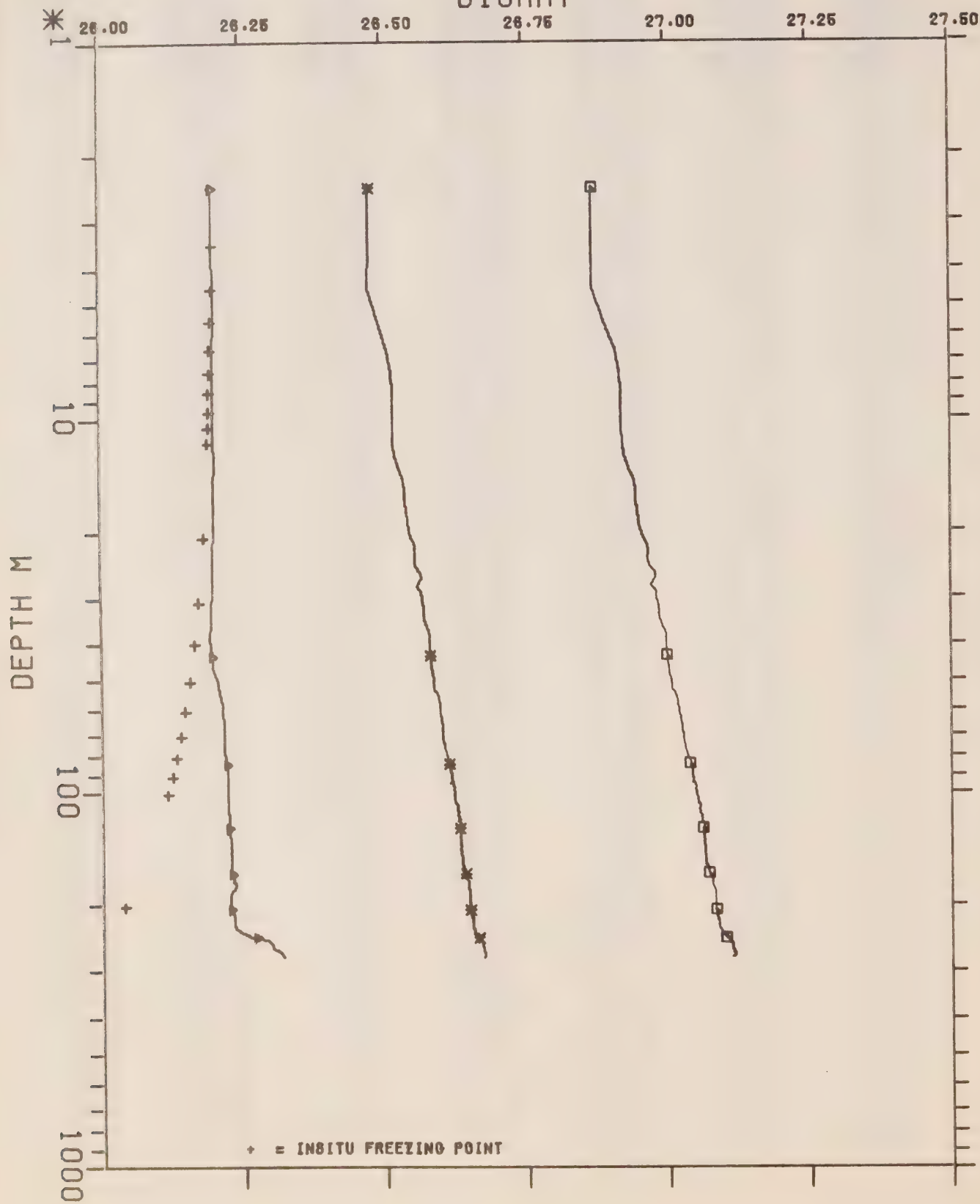
DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.98	-1.666	26.429	33.121	26.677	1443.3
266.0	269.98	-1.667	26.430	33.121	26.678	1443.3
267.0	270.98	-1.665	26.431	33.121	26.678	1443.4
268.0	271.98	-1.665	26.432	33.121	26.678	1443.4
269.0	272.98	-1.665	26.433	33.122	26.678	1443.4
270.0	273.59	-1.664	26.430	33.117	26.674	1443.4

EXPERIMENT 3019

TEMPERATURE. C

SALINITY 0/00

SIGMAT



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3019
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0025
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.45	-1.800	26.029	32.871	26.478	1438.0
3.0	3.51	-1.799	26.030	32.870	26.477	1438.0
4.0	4.59	-1.798	26.030	32.869	26.476	1438.0
5.0	5.58	-1.798	26.045	32.889	26.492	1438.0
6.0	6.61	-1.799	26.059	32.909	26.508	1438.1
7.0	7.62	-1.799	26.066	32.919	26.516	1438.1
8.0	8.62	-1.799	26.068	32.919	26.517	1438.1
9.0	9.66	-1.799	26.068	32.920	26.517	1438.1
10.0	10.64	-1.799	26.069	32.920	26.518	1438.2
11.0	11.72	-1.799	26.070	32.921	26.519	1438.2
12.0	12.68	-1.798	26.073	32.924	26.521	1438.2
13.0	13.73	-1.799	26.078	32.931	26.527	1438.2
14.0	14.72	-1.800	26.086	32.942	26.535	1438.3
15.0	15.74	-1.799	26.088	32.944	26.537	1438.3
16.0	16.76	-1.800	26.089	32.946	26.538	1438.3
17.0	17.75	-1.800	26.091	32.947	26.540	1438.3
18.0	18.81	-1.800	26.093	32.951	26.543	1438.3
19.0	19.78	-1.800	26.095	32.953	26.544	1438.4
20.0	20.85	-1.801	26.098	32.957	26.547	1438.4
21.0	21.81	-1.802	26.104	32.966	26.555	1438.4
22.0	22.82	-1.802	26.106	32.967	26.556	1438.4
23.0	23.85	-1.801	26.105	32.966	26.555	1438.4
24.0	24.85	-1.801	26.106	32.967	26.555	1438.5
25.0	25.90	-1.802	26.115	32.979	26.565	1438.5
26.0	26.87	-1.802	26.115	32.980	26.566	1438.5
27.0	27.92	-1.803	26.108	32.969	26.557	1438.5
28.0	28.91	-1.803	26.116	32.980	26.566	1438.5
29.0	29.93	-1.804	26.117	32.981	26.567	1438.5
30.0	30.96	-1.804	26.119	32.983	26.568	1438.6
31.0	31.94	-1.804	26.120	32.984	26.570	1438.6
32.0	32.99	-1.804	26.121	32.985	26.570	1438.6
33.0	33.95	-1.804	26.121	32.985	26.570	1438.6
34.0	35.01	-1.805	26.122	32.987	26.571	1438.6
35.0	35.97	-1.806	26.124	32.989	26.574	1438.6
36.0	37.02	-1.807	26.127	32.995	26.578	1438.7
37.0	38.02	-1.807	26.129	32.997	26.580	1438.7
38.0	39.07	-1.807	26.130	32.997	26.580	1438.7
39.0	40.04	-1.806	26.131	32.997	26.580	1438.7
40.0	41.10	-1.804	26.133	32.997	26.580	1438.7
41.0	42.06	-1.803	26.135	32.998	26.581	1438.8
42.0	43.14	-1.803	26.137	33.000	26.582	1438.8
43.0	44.12	-1.803	26.137	32.999	26.582	1438.8
44.0	45.15	-1.803	26.138	33.001	26.583	1438.8
45.0	46.14	-1.803	26.139	33.001	26.583	1438.8
46.0	47.18	-1.801	26.143	33.003	26.585	1438.9
47.0	48.17	-1.798	26.146	33.004	26.585	1438.9
48.0	49.20	-1.795	26.149	33.005	26.586	1438.9
49.0	50.19	-1.793	26.152	33.006	26.587	1439.0
50.0	51.24	-1.793	26.153	33.006	26.587	1439.0
51.0	52.19	-1.792	26.155	33.007	26.588	1439.0
52.0	53.25	-1.790	26.157	33.008	26.588	1439.0
53.0	54.21	-1.789	26.162	33.013	26.592	1439.1
54.0	55.29	-1.787	26.166	33.016	26.595	1439.1
55.0	56.25	-1.787	26.168	33.017	26.596	1439.1
56.0	57.31	-1.785	26.171	33.019	26.597	1439.1
57.0	58.29	-1.785	26.171	33.018	26.597	1439.2
58.0	59.36	-1.785	26.172	33.019	26.597	1439.2
59.0	60.33	-1.785	26.172	33.019	26.598	1439.2
60.0	61.36	-1.785	26.173	33.020	26.598	1439.2
61.0	62.35	-1.784	26.176	33.022	26.600	1439.2
62.0	63.38	-1.783	26.177	33.022	26.600	1439.2
63.0	64.38	-1.783	26.179	33.024	26.601	1439.3

EXPERIMENT 3019

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.38	-1.782	26.181	33.025	26.602	1439.3
65.0	66.41	-1.782	26.182	33.025	26.603	1439.3
66.0	67.39	-1.782	26.182	33.026	26.603	1439.3
67.0	68.44	-1.782	26.183	33.026	26.603	1439.3
68.0	69.40	-1.783	26.183	33.026	26.603	1439.4
69.0	70.46	-1.783	26.184	33.027	26.604	1439.4
70.0	71.43	-1.782	26.184	33.027	26.603	1439.4
71.0	72.48	-1.783	26.185	33.027	26.604	1439.4
72.0	73.48	-1.782	26.187	33.028	26.605	1439.4
73.0	74.49	-1.782	26.188	33.029	26.606	1439.4
74.0	75.51	-1.782	26.188	33.030	26.606	1439.5
75.0	76.48	-1.782	26.189	33.030	26.606	1439.5
76.0	77.54	-1.782	26.191	33.031	26.607	1439.5
77.0	78.49	-1.781	26.193	33.033	26.608	1439.5
78.0	79.56	-1.781	26.195	33.034	26.610	1439.5
79.0	80.53	-1.780	26.196	33.035	26.610	1439.6
80.0	81.56	-1.780	26.199	33.038	26.613	1439.6
81.0	82.57	-1.779	26.201	33.039	26.614	1439.6
82.0	83.57	-1.779	26.202	33.039	26.614	1439.6
83.0	84.60	-1.778	26.203	33.040	26.614	1439.6
84.0	85.57	-1.777	26.205	33.041	26.615	1439.7
85.0	86.63	-1.778	26.206	33.042	26.616	1439.7
86.0	87.61	-1.778	26.206	33.042	26.616	1439.7
87.0	88.63	-1.778	26.207	33.043	26.617	1439.7
88.0	89.66	-1.778	26.207	33.043	26.617	1439.7
89.0	90.61	-1.778	26.208	33.044	26.617	1439.7
90.0	91.67	-1.778	26.210	33.045	26.618	1439.8
91.0	92.67	-1.777	26.212	33.046	26.619	1439.8
92.0	93.66	-1.777	26.209	33.042	26.616	1439.8
93.0	94.71	-1.778	26.213	33.048	26.621	1439.8
94.0	95.68	-1.777	26.214	33.048	26.621	1439.8
95.0	96.73	-1.777	26.216	33.050	26.622	1439.9
96.0	97.74	-1.777	26.215	33.047	26.620	1439.9
97.0	98.69	-1.777	26.217	33.050	26.622	1439.9
98.0	99.74	-1.777	26.217	33.049	26.621	1439.9
99.0	100.75	-1.777	26.218	33.049	26.622	1439.9
100.0	101.72	-1.777	26.218	33.050	26.623	1439.9
101.0	102.78	-1.778	26.219	33.051	26.623	1440.0
102.0	103.76	-1.778	26.220	33.051	26.623	1440.0
103.0	104.77	-1.778	26.220	33.052	26.624	1440.0
104.0	105.79	-1.778	26.221	33.051	26.624	1440.0
105.0	106.77	-1.777	26.222	33.052	26.624	1440.0
106.0	107.82	-1.777	26.226	33.056	26.627	1440.1
107.0	108.78	-1.776	26.227	33.057	26.628	1440.1
108.0	109.84	-1.776	26.228	33.057	26.628	1440.1
109.0	110.80	-1.776	26.227	33.056	26.627	1440.1
110.0	111.86	-1.776	26.227	33.056	26.627	1440.1
111.0	112.83	-1.776	26.230	33.058	26.629	1440.1
112.0	113.89	-1.776	26.228	33.055	26.627	1440.2
113.0	114.84	-1.776	26.231	33.058	26.628	1440.2
114.0	115.90	-1.775	26.233	33.060	26.630	1440.2
115.0	116.86	-1.775	26.233	33.059	26.629	1440.2
116.0	117.93	-1.775	26.235	33.061	26.631	1440.2
117.0	118.88	-1.775	26.233	33.058	26.629	1440.2
118.0	119.94	-1.775	26.234	33.059	26.630	1440.3
119.0	120.92	-1.775	26.237	33.062	26.632	1440.3
120.0	121.95	-1.775	26.239	33.064	26.634	1440.3
121.0	122.93	-1.775	26.238	33.062	26.632	1440.3
122.0	123.95	-1.775	26.238	33.062	26.632	1440.3
123.0	124.97	-1.775	26.239	33.063	26.633	1440.4
124.0	126.00	-1.775	26.240	33.063	26.633	1440.4
125.0	127.01	-1.775	26.240	33.063	26.633	1440.4
126.0	127.98	-1.775	26.241	33.063	26.633	1440.4
127.0	129.03	-1.775	26.241	33.063	26.633	1440.4
128.0	129.99	-1.774	26.242	33.062	26.632	1440.4
129.0	131.04	-1.773	26.243	33.063	26.633	1440.5
130.0	132.03	-1.773	26.244	33.063	26.633	1440.5

EXPERIMENT 3019

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	133.04	-1.773	26.245	33.064	26.633	1440.5
132.0	134.06	-1.773	26.245	33.064	26.634	1440.5
133.0	135.06	-1.773	26.246	33.064	26.633	1440.5
134.0	136.11	-1.773	26.246	33.064	26.634	1440.5
135.0	137.06	-1.773	26.247	33.064	26.633	1440.6
136.0	138.13	-1.773	26.247	33.064	26.634	1440.6
137.0	139.10	-1.773	26.248	33.064	26.633	1440.6
138.0	140.12	-1.773	26.248	33.064	26.633	1440.6
139.0	141.14	-1.773	26.249	33.064	26.634	1440.6
140.0	142.15	-1.773	26.249	33.064	26.634	1440.6
141.0	143.18	-1.773	26.250	33.064	26.634	1440.7
142.0	144.14	-1.773	26.250	33.064	26.633	1440.7
143.0	145.19	-1.773	26.251	33.064	26.634	1440.7
144.0	146.18	-1.773	26.251	33.064	26.634	1440.7
145.0	147.21	-1.772	26.252	33.064	26.634	1440.7
146.0	148.22	-1.773	26.252	33.065	26.634	1440.7
147.0	149.21	-1.772	26.253	33.064	26.634	1440.8
148.0	150.26	-1.773	26.254	33.065	26.634	1440.8
149.0	151.23	-1.773	26.254	33.065	26.635	1440.8
150.0	152.27	-1.772	26.255	33.065	26.635	1440.8
151.0	153.27	-1.772	26.256	33.066	26.635	1440.8
152.0	154.26	-1.772	26.256	33.066	26.635	1440.9
153.0	155.31	-1.773	26.256	33.066	26.635	1440.9
154.0	156.29	-1.773	26.258	33.068	26.637	1440.9
155.0	157.33	-1.773	26.259	33.068	26.637	1440.9
156.0	158.33	-1.773	26.258	33.067	26.636	1440.9
157.0	159.30	-1.773	26.260	33.069	26.637	1440.9
158.0	160.38	-1.773	26.261	33.069	26.638	1441.0
159.0	161.35	-1.773	26.261	33.070	26.638	1441.0
160.0	162.38	-1.773	26.262	33.070	26.638	1441.0
161.0	163.40	-1.773	26.263	33.070	26.638	1441.0
162.0	164.39	-1.772	26.265	33.072	26.640	1441.0
163.0	165.40	-1.771	26.267	33.073	26.641	1441.0
164.0	166.43	-1.771	26.268	33.074	26.642	1441.1
165.0	167.43	-1.770	26.271	33.076	26.643	1441.1
166.0	168.42	-1.769	26.273	33.076	26.643	1441.1
167.0	169.45	-1.769	26.273	33.076	26.644	1441.1
168.0	170.47	-1.768	26.274	33.077	26.644	1441.2
169.0	171.45	-1.769	26.274	33.077	26.644	1441.2
170.0	172.48	-1.770	26.274	33.077	26.644	1441.2
171.0	173.49	-1.766	26.277	33.077	26.644	1441.2
172.0	174.48	-1.765	26.278	33.077	26.644	1441.2
173.0	175.51	-1.765	26.279	33.077	26.644	1441.3
174.0	176.51	-1.765	26.280	33.077	26.644	1441.3
175.0	177.52	-1.765	26.280	33.078	26.645	1441.3
176.0	178.55	-1.767	26.280	33.078	26.645	1441.3
177.0	179.52	-1.768	26.280	33.079	26.645	1441.3
178.0	180.57	-1.769	26.281	33.080	26.647	1441.3
179.0	181.55	-1.770	26.280	33.080	26.647	1441.3
180.0	182.57	-1.771	26.280	33.081	26.648	1441.3
181.0	183.57	-1.772	26.280	33.081	26.648	1441.4
182.0	184.57	-1.773	26.280	33.082	26.648	1441.4
183.0	185.63	-1.774	26.280	33.082	26.648	1441.4
184.0	186.60	-1.775	26.279	33.082	26.648	1441.4
185.0	187.65	-1.775	26.280	33.082	26.648	1441.4
186.0	188.63	-1.775	26.281	33.082	26.648	1441.4
187.0	189.66	-1.775	26.281	33.082	26.648	1441.4
188.0	190.67	-1.775	26.281	33.082	26.648	1441.5
189.0	191.63	-1.775	26.281	33.082	26.648	1441.5
190.0	192.71	-1.775	26.282	33.082	26.649	1441.5
191.0	193.67	-1.775	26.282	33.082	26.649	1441.5
192.0	194.71	-1.775	26.283	33.082	26.649	1441.5
193.0	195.71	-1.775	26.283	33.083	26.649	1441.5
194.0	196.72	-1.775	26.284	33.082	26.648	1441.6
195.0	197.76	-1.775	26.284	33.082	26.648	1441.6
196.0	198.72	-1.775	26.285	33.083	26.649	1441.6
197.0	199.79	-1.774	26.286	33.083	26.649	1441.6

EXPERIMENT 3019

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	200.74	-1.774	26.287	33.083	26.649	1441.6
199.0	201.79	-1.774	26.287	33.083	26.649	1441.6
200.0	202.74	-1.774	26.288	33.083	26.649	1441.7
201.0	203.79	-1.774	26.288	33.083	26.649	1441.7
202.0	204.79	-1.774	26.289	33.083	26.649	1441.7
203.0	205.83	-1.773	26.289	33.083	26.649	1441.7
204.0	206.80	-1.773	26.290	33.084	26.649	1441.7
205.0	207.83	-1.772	26.293	33.084	26.650	1441.8
206.0	208.80	-1.770	26.295	33.084	26.650	1441.8
207.0	209.85	-1.768	26.297	33.085	26.651	1441.8
208.0	210.85	-1.768	26.298	33.085	26.650	1441.8
209.0	211.84	-1.768	26.299	33.086	26.651	1441.8
210.0	212.90	-1.768	26.299	33.086	26.651	1441.9
211.0	213.86	-1.768	26.300	33.086	26.651	1441.9
212.0	214.88	-1.768	26.300	33.086	26.651	1441.9
213.0	215.92	-1.767	26.301	33.086	26.651	1441.9
214.0	216.87	-1.767	26.302	33.086	26.652	1441.9
215.0	217.92	-1.767	26.302	33.086	26.651	1441.9
216.0	218.92	-1.768	26.302	33.087	26.652	1442.0
217.0	219.92	-1.768	26.303	33.087	26.652	1442.0
218.0	220.97	-1.767	26.304	33.087	26.652	1442.0
219.0	221.96	-1.768	26.304	33.087	26.652	1442.0
220.0	222.93	-1.767	26.305	33.087	26.652	1442.0
221.0	224.00	-1.767	26.306	33.087	26.652	1442.1
222.0	224.97	-1.767	26.306	33.088	26.653	1442.1
223.0	225.99	-1.767	26.307	33.088	26.653	1442.1
224.0	227.01	-1.766	26.309	33.088	26.653	1442.1
225.0	227.98	-1.765	26.309	33.088	26.653	1442.1
226.0	229.05	-1.765	26.310	33.088	26.653	1442.1
227.0	230.02	-1.764	26.311	33.089	26.653	1442.2
228.0	231.05	-1.761	26.314	33.089	26.654	1442.2
229.0	232.07	-1.760	26.316	33.089	26.654	1442.2
230.0	233.04	-1.758	26.319	33.091	26.655	1442.2
231.0	234.10	-1.757	26.321	33.091	26.655	1442.3
232.0	235.07	-1.755	26.323	33.091	26.655	1442.3
233.0	236.10	-1.754	26.325	33.092	26.656	1442.3
234.0	237.10	-1.748	26.331	33.094	26.657	1442.4
235.0	238.11	-1.746	26.333	33.094	26.658	1442.4
236.0	239.11	-1.743	26.337	33.096	26.659	1442.4
237.0	240.10	-1.742	26.339	33.097	26.660	1442.4
238.0	241.15	-1.741	26.341	33.097	26.660	1442.5
239.0	242.14	-1.737	26.347	33.100	26.662	1442.5
240.0	243.12	-1.728	26.356	33.102	26.663	1442.6
241.0	244.17	-1.723	26.360	33.103	26.664	1442.6
242.0	245.18	-1.719	26.366	33.105	26.665	1442.7
243.0	246.15	-1.711	26.374	33.107	26.667	1442.7
244.0	247.20	-1.708	26.378	33.109	26.668	1442.7
245.0	248.20	-1.704	26.382	33.110	26.669	1442.8
246.0	249.18	-1.705	26.382	33.110	26.669	1442.8
247.0	250.22	-1.703	26.385	33.111	26.670	1442.8
248.0	251.23	-1.702	26.386	33.111	26.670	1442.8
249.0	252.21	-1.701	26.387	33.111	26.670	1442.9
250.0	253.27	-1.700	26.389	33.112	26.671	1442.9
251.0	254.25	-1.700	26.390	33.112	26.671	1442.9
252.0	255.24	-1.700	26.390	33.112	26.671	1442.9
253.0	256.29	-1.700	26.391	33.112	26.671	1442.9
254.0	257.26	-1.700	26.391	33.112	26.671	1443.0
255.0	258.28	-1.700	26.392	33.113	26.671	1443.0
256.0	259.32	-1.699	26.393	33.113	26.671	1443.0
257.0	260.30	-1.698	26.395	33.113	26.672	1443.0
258.0	261.32	-1.695	26.398	33.114	26.672	1443.0
259.0	262.37	-1.692	26.401	33.114	26.673	1443.1
260.0	263.32	-1.691	26.402	33.114	26.673	1443.1
261.0	264.29	-1.690	26.404	33.115	26.673	1443.1
262.0	265.29	-1.688	26.406	33.115	26.673	1443.1
263.0	266.37	-1.685	26.410	33.116	26.674	1443.2
264.0	267.35	-1.684	26.411	33.116	26.674	1443.2

EXPERIMENT 3019

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.34	-1.683	26.413	33.117	26.675	1443.2
266.0	269.35	-1.682	26.414	33.117	26.675	1443.2
267.0	270.36	-1.682	26.415	33.118	26.675	1443.3
268.0	271.33	-1.682	26.415	33.117	26.675	1443.3
269.0	272.28	-1.682	26.415	33.117	26.675	1443.3
270.0	273.12	-1.681	26.414	33.113	26.671	1443.3

EXPERIMENT 3020

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

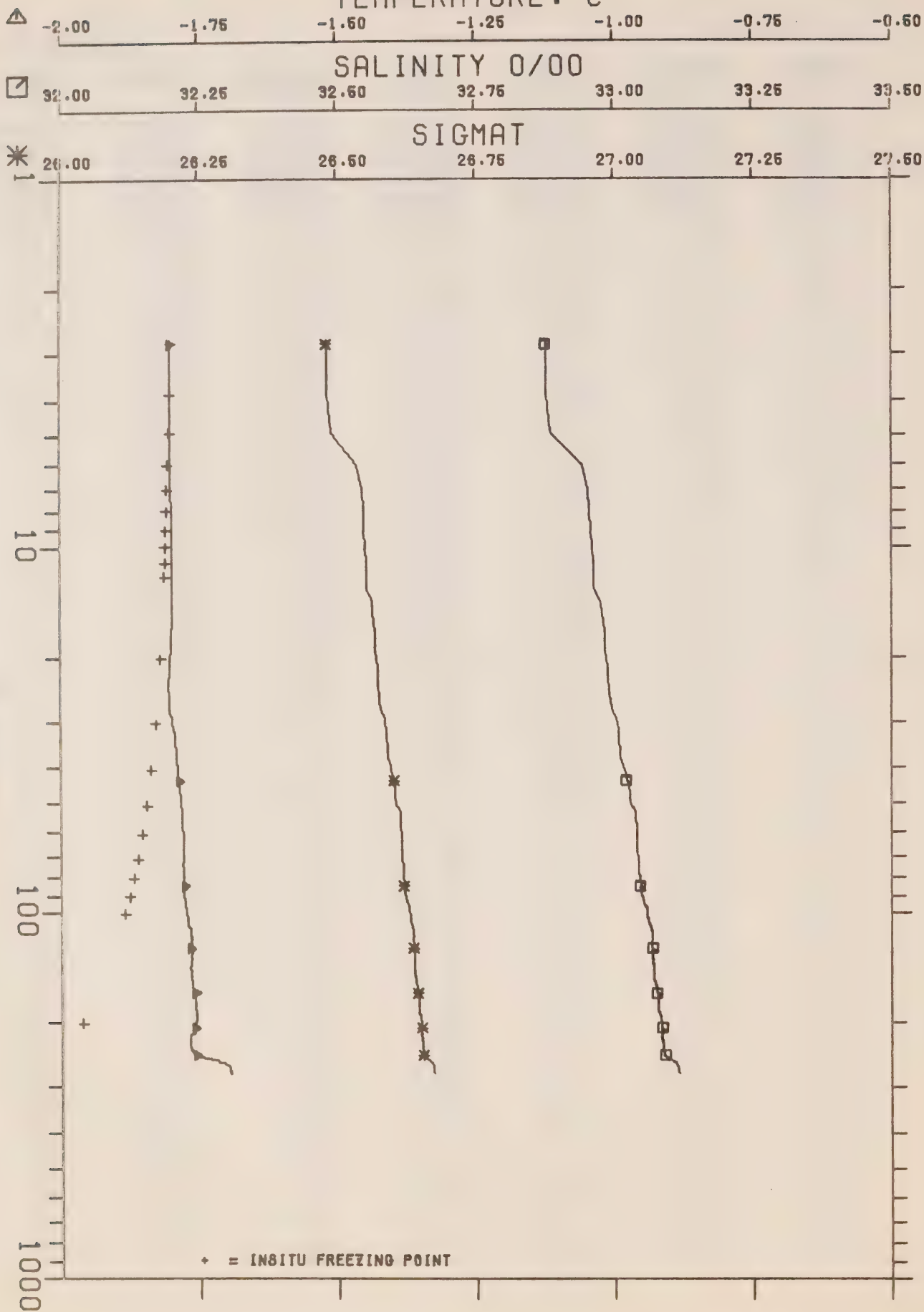
DEPTH M

10

100

1000

+ = INSITU FREEZING POINT



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3020
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0144
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.83	-1.801	26.033	32.877	26.482	1438.0
3.0	3.87	-1.801	26.034	32.877	26.483	1438.0
4.0	4.94	-1.801	26.040	32.886	26.490	1438.0
5.0	6.01	-1.800	26.081	32.941	26.535	1438.1
6.0	7.02	-1.799	26.091	32.953	26.544	1438.2
7.0	8.03	-1.799	26.094	32.956	26.547	1438.2
8.0	9.06	-1.798	26.095	32.957	26.548	1438.2
9.0	10.07	-1.798	26.098	32.961	26.550	1438.2
10.0	11.09	-1.798	26.100	32.962	26.552	1438.2
11.0	12.08	-1.799	26.100	32.963	26.552	1438.2
12.0	13.13	-1.799	26.101	32.963	26.553	1438.3
13.0	14.11	-1.797	26.111	32.975	26.562	1438.3
14.0	15.15	-1.797	26.112	32.976	26.563	1438.3
15.0	16.16	-1.799	26.114	32.980	26.566	1438.3
16.0	17.18	-1.799	26.116	32.982	26.567	1438.4
17.0	18.17	-1.799	26.116	32.982	26.568	1438.4
18.0	19.20	-1.800	26.117	32.983	26.568	1438.4
19.0	20.22	-1.802	26.117	32.985	26.571	1438.4
20.0	21.22	-1.802	26.119	32.987	26.572	1438.4
21.0	22.25	-1.803	26.119	32.987	26.572	1438.4
22.0	23.24	-1.804	26.118	32.987	26.572	1438.4
23.0	24.29	-1.804	26.120	32.989	26.573	1438.5
24.0	25.25	-1.802	26.124	32.991	26.575	1438.5
25.0	26.31	-1.802	26.125	32.992	26.576	1438.5
26.0	27.30	-1.802	26.127	32.994	26.578	1438.5
27.0	28.35	-1.802	26.129	32.997	26.580	1438.5
28.0	29.35	-1.798	26.137	33.002	26.584	1438.6
29.0	30.35	-1.798	26.138	33.004	26.585	1438.6
30.0	31.41	-1.795	26.143	33.006	26.587	1438.6
31.0	32.37	-1.793	26.145	33.007	26.588	1438.7
32.0	33.40	-1.794	26.146	33.008	26.589	1438.7
33.0	34.40	-1.792	26.148	33.009	26.589	1438.7
34.0	35.44	-1.791	26.150	33.010	26.590	1438.7
35.0	36.43	-1.791	26.151	33.010	26.591	1438.8
36.0	37.46	-1.791	26.152	33.010	26.591	1438.8
37.0	38.47	-1.789	26.155	33.013	26.593	1438.8
38.0	39.47	-1.788	26.158	33.015	26.594	1438.8
39.0	40.51	-1.787	26.161	33.017	26.596	1438.8
40.0	41.50	-1.787	26.163	33.019	26.597	1438.9
41.0	42.54	-1.786	26.164	33.020	26.599	1438.9
42.0	43.51	-1.785	26.167	33.022	26.600	1438.9
43.0	44.57	-1.785	26.170	33.025	26.602	1438.9
44.0	45.54	-1.784	26.172	33.026	26.603	1439.0
45.0	46.60	-1.784	26.172	33.026	26.603	1439.0
46.0	47.58	-1.784	26.173	33.026	26.603	1439.0
47.0	48.62	-1.784	26.174	33.027	26.604	1439.0
48.0	49.62	-1.783	26.175	33.027	26.604	1439.0
49.0	50.64	-1.782	26.178	33.030	26.606	1439.1
50.0	51.67	-1.781	26.184	33.035	26.611	1439.1
51.0	52.65	-1.780	26.186	33.037	26.612	1439.1
52.0	53.69	-1.779	26.187	33.038	26.612	1439.1
53.0	54.68	-1.780	26.188	33.038	26.613	1439.1
54.0	55.74	-1.779	26.189	33.039	26.613	1439.2
55.0	56.71	-1.779	26.190	33.039	26.614	1439.2
56.0	57.76	-1.779	26.190	33.039	26.614	1439.2
57.0	58.74	-1.779	26.191	33.039	26.614	1439.2
58.0	59.79	-1.779	26.192	33.040	26.614	1439.2
59.0	60.79	-1.778	26.193	33.040	26.614	1439.3
60.0	61.83	-1.778	26.193	33.040	26.614	1439.3
61.0	62.83	-1.778	26.194	33.040	26.614	1439.3
62.0	63.89	-1.778	26.194	33.040	26.615	1439.3
63.0	64.85	-1.779	26.195	33.040	26.615	1439.3

EXPERIMENT 3020

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.85	-1.779	26.195	33.041	26.615	1439.3
65.0	66.85	-1.778	26.196	33.041	26.615	1439.4
66.0	67.88	-1.779	26.196	33.041	26.615	1439.4
67.0	68.88	-1.779	26.197	33.041	26.615	1439.4
68.0	69.90	-1.778	26.198	33.041	26.615	1439.4
69.0	70.92	-1.779	26.198	33.042	26.616	1439.4
70.0	71.93	-1.779	26.199	33.042	26.616	1439.4
71.0	72.94	-1.779	26.199	33.043	26.616	1439.5
72.0	73.93	-1.779	26.200	33.043	26.616	1439.5
73.0	74.99	-1.778	26.201	33.043	26.617	1439.5
74.0	75.98	-1.778	26.201	33.043	26.616	1439.5
75.0	77.02	-1.777	26.203	33.044	26.617	1439.5
76.0	77.98	-1.777	26.204	33.044	26.617	1439.5
77.0	79.05	-1.777	26.205	33.044	26.617	1439.6
78.0	80.01	-1.777	26.205	33.044	26.618	1439.6
79.0	81.07	-1.777	26.206	33.045	26.618	1439.6
80.0	82.04	-1.777	26.207	33.046	26.619	1439.6
81.0	83.08	-1.776	26.208	33.046	26.619	1439.6
82.0	84.09	-1.776	26.209	33.046	26.619	1439.7
83.0	85.10	-1.776	26.209	33.046	26.619	1439.7
84.0	86.13	-1.777	26.210	33.047	26.620	1439.7
85.0	87.09	-1.777	26.210	33.048	26.620	1439.7
86.0	88.18	-1.777	26.211	33.048	26.621	1439.7
87.0	89.12	-1.777	26.211	33.048	26.621	1439.7
88.0	90.18	-1.776	26.213	33.049	26.622	1439.8
89.0	91.16	-1.775	26.216	33.051	26.623	1439.8
90.0	92.18	-1.775	26.218	33.053	26.624	1439.8
91.0	93.22	-1.775	26.218	33.052	26.624	1439.8
92.0	94.18	-1.774	26.220	33.053	26.625	1439.8
93.0	95.26	-1.774	26.222	33.055	26.627	1439.9
94.0	96.22	-1.774	26.224	33.057	26.628	1439.9
95.0	97.28	-1.773	26.225	33.057	26.628	1439.9
96.0	98.27	-1.773	26.225	33.057	26.628	1439.9
97.0	99.26	-1.773	26.226	33.057	26.628	1439.9
98.0	100.32	-1.771	26.228	33.058	26.629	1440.0
99.0	101.27	-1.771	26.229	33.058	26.629	1440.0
100.0	102.35	-1.771	26.230	33.058	26.629	1440.0
101.0	103.32	-1.771	26.231	33.059	26.630	1440.0
102.0	104.36	-1.770	26.232	33.059	26.630	1440.0
103.0	105.33	-1.770	26.232	33.060	26.630	1440.0
104.0	106.39	-1.770	26.235	33.062	26.632	1440.1
105.0	107.35	-1.769	26.236	33.062	26.632	1440.1
106.0	108.42	-1.767	26.240	33.065	26.634	1440.1
107.0	109.38	-1.766	26.241	33.064	26.633	1440.1
108.0	110.44	-1.766	26.242	33.065	26.635	1440.2
109.0	111.41	-1.766	26.244	33.067	26.636	1440.2
110.0	112.47	-1.765	26.245	33.067	26.636	1440.2
111.0	113.44	-1.766	26.244	33.066	26.635	1440.2
112.0	114.49	-1.764	26.246	33.066	26.635	1440.2
113.0	115.45	-1.764	26.248	33.068	26.636	1440.3
114.0	116.51	-1.764	26.247	33.067	26.636	1440.3
115.0	117.49	-1.763	26.248	33.067	26.636	1440.3
116.0	118.53	-1.764	26.248	33.067	26.636	1440.3
117.0	119.51	-1.764	26.249	33.067	26.636	1440.3
118.0	120.57	-1.763	26.250	33.068	26.636	1440.3
119.0	121.54	-1.762	26.251	33.067	26.636	1440.4
120.0	122.60	-1.767	26.247	33.066	26.635	1440.4
121.0	123.57	-1.766	26.250	33.068	26.637	1440.4
122.0	124.62	-1.767	26.249	33.068	26.636	1440.4
123.0	125.58	-1.763	26.252	33.068	26.636	1440.4
124.0	126.64	-1.763	26.254	33.069	26.637	1440.4
125.0	127.61	-1.763	26.254	33.068	26.637	1440.5
126.0	128.64	-1.764	26.253	33.068	26.637	1440.5
127.0	129.62	-1.765	26.253	33.068	26.637	1440.5
128.0	130.67	-1.765	26.254	33.068	26.637	1440.5
129.0	131.64	-1.764	26.255	33.068	26.637	1440.5
130.0	132.72	-1.764	26.256	33.068	26.637	1440.5

EXPERIMENT 3020

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/gg)	SIGMAT	SOUND (M/SEC)
131.0	133.65	-1.765	26.256	33.069	26.637	1440.6
132.0	134.73	-1.766	26.255	33.069	26.637	1440.6
133.0	135.70	-1.765	26.256	33.068	26.637	1440.6
134.0	136.74	-1.766	26.256	33.069	26.637	1440.6
135.0	137.72	-1.766	26.257	33.069	26.637	1440.6
136.0	138.74	-1.765	26.257	33.069	26.638	1440.6
137.0	139.74	-1.767	26.257	33.069	26.638	1440.6
138.0	140.76	-1.766	26.258	33.069	26.638	1440.7
139.0	141.78	-1.765	26.260	33.070	26.638	1440.7
140.0	142.77	-1.764	26.261	33.070	26.638	1440.7
141.0	143.82	-1.763	26.262	33.070	26.638	1440.7
142.0	144.79	-1.764	26.262	33.070	26.638	1440.7
143.0	145.85	-1.764	26.262	33.070	26.638	1440.8
144.0	146.82	-1.764	26.262	33.070	26.638	1440.8
145.0	147.85	-1.764	26.263	33.070	26.639	1440.8
146.0	148.85	-1.763	26.265	33.071	26.639	1440.8
147.0	149.85	-1.764	26.264	33.070	26.639	1440.8
148.0	150.90	-1.764	26.265	33.071	26.639	1440.8
149.0	151.85	-1.762	26.267	33.071	26.639	1440.9
150.0	152.92	-1.762	26.269	33.073	26.641	1440.9
151.0	153.89	-1.762	26.269	33.073	26.641	1440.9
152.0	154.92	-1.762	26.270	33.073	26.641	1440.9
153.0	155.92	-1.762	26.270	33.073	26.641	1440.9
154.0	156.92	-1.762	26.271	33.074	26.641	1441.0
155.0	157.99	-1.763	26.271	33.074	26.642	1441.0
156.0	158.94	-1.762	26.272	33.075	26.642	1441.0
157.0	160.01	-1.761	26.275	33.076	26.643	1441.0
158.0	160.98	-1.759	26.277	33.076	26.643	1441.0
159.0	161.99	-1.759	26.277	33.076	26.643	1441.1
160.0	163.04	-1.759	26.278	33.076	26.643	1441.1
161.0	163.99	-1.758	26.279	33.076	26.643	1441.1
162.0	165.06	-1.757	26.281	33.077	26.644	1441.1
163.0	166.04	-1.757	26.282	33.078	26.644	1441.1
164.0	167.05	-1.757	26.282	33.078	26.644	1441.2
165.0	168.08	-1.757	26.283	33.078	26.644	1441.2
166.0	169.05	-1.757	26.283	33.078	26.644	1441.2
167.0	170.10	-1.757	26.284	33.078	26.644	1441.2
168.0	171.12	-1.757	26.284	33.078	26.645	1441.2
169.0	172.08	-1.757	26.285	33.078	26.644	1441.2
170.0	173.14	-1.757	26.285	33.078	26.645	1441.3
171.0	174.10	-1.757	26.286	33.078	26.645	1441.3
172.0	175.15	-1.757	26.286	33.078	26.645	1441.3
173.0	176.12	-1.757	26.287	33.078	26.644	1441.3
174.0	177.17	-1.757	26.287	33.078	26.645	1441.3
175.0	178.15	-1.757	26.288	33.078	26.645	1441.3
176.0	179.20	-1.757	26.288	33.078	26.645	1441.4
177.0	180.16	-1.757	26.289	33.078	26.645	1441.4
178.0	181.21	-1.757	26.289	33.078	26.645	1441.4
179.0	182.20	-1.756	26.289	33.078	26.644	1441.4
180.0	183.24	-1.756	26.290	33.078	26.645	1441.4
181.0	184.21	-1.756	26.291	33.078	26.645	1441.4
182.0	185.27	-1.756	26.292	33.079	26.645	1441.5
183.0	186.24	-1.756	26.292	33.079	26.645	1441.5
184.0	187.30	-1.756	26.293	33.079	26.646	1441.5
185.0	188.28	-1.755	26.294	33.080	26.646	1441.5
186.0	189.29	-1.755	26.296	33.081	26.647	1441.5
187.0	190.30	-1.754	26.297	33.082	26.648	1441.5
188.0	191.30	-1.754	26.298	33.082	26.648	1441.6
189.0	192.34	-1.754	26.299	33.082	26.648	1441.6
190.0	193.32	-1.754	26.299	33.082	26.648	1441.6
191.0	194.37	-1.755	26.299	33.083	26.649	1441.6
192.0	195.34	-1.755	26.299	33.083	26.648	1441.6
193.0	196.40	-1.759	26.298	33.084	26.650	1441.6
194.0	197.38	-1.757	26.300	33.085	26.650	1441.7
195.0	198.42	-1.758	26.300	33.085	26.650	1441.7
196.0	199.39	-1.757	26.301	33.085	26.650	1441.7
197.0	200.44	-1.758	26.301	33.085	26.650	1441.7

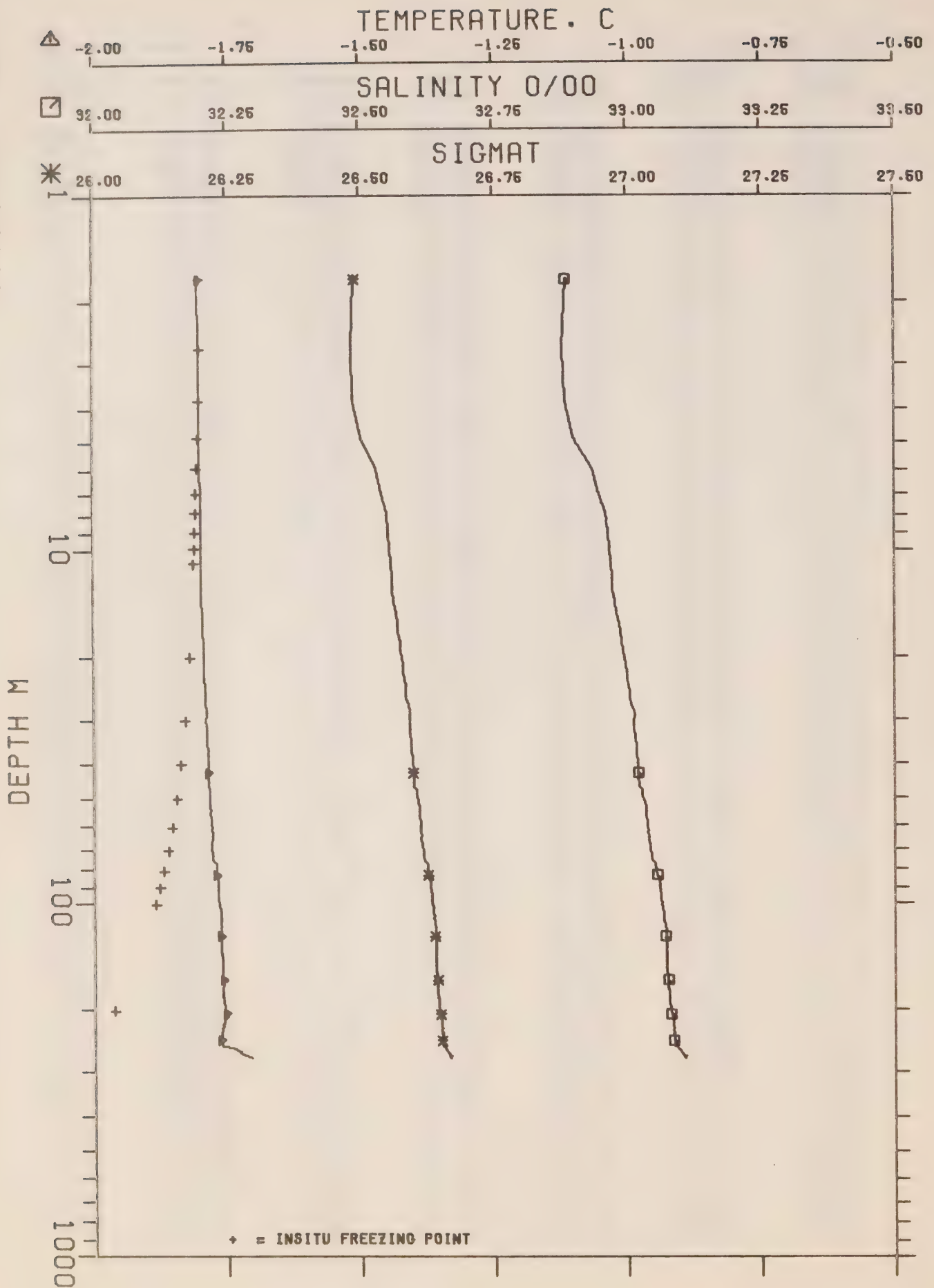
EXPERIMENT 3020

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.42	-1.758	26.301	33.085	26.650	1441.7
199.0	202.46	-1.758	26.302	33.085	26.650	1441.7
200.0	203.45	-1.759	26.301	33.085	26.650	1441.7
201.0	204.47	-1.759	26.302	33.085	26.651	1441.8
202.0	205.49	-1.759	26.302	33.085	26.650	1441.8
203.0	206.49	-1.759	26.303	33.085	26.650	1441.8
204.0	207.52	-1.759	26.303	33.085	26.650	1441.8
205.0	208.51	-1.759	26.304	33.085	26.651	1441.8
206.0	209.55	-1.759	26.305	33.086	26.651	1441.8
207.0	210.53	-1.759	26.305	33.085	26.650	1441.9
208.0	211.58	-1.761	26.304	33.085	26.651	1441.9
209.0	212.55	-1.761	26.305	33.086	26.651	1441.9
210.0	213.58	-1.766	26.301	33.086	26.651	1441.9
211.0	214.60	-1.767	26.301	33.086	26.651	1441.9
212.0	215.58	-1.767	26.301	33.086	26.651	1441.9
213.0	216.64	-1.767	26.301	33.086	26.651	1441.9
214.0	217.60	-1.768	26.301	33.086	26.651	1441.9
215.0	218.65	-1.768	26.302	33.086	26.651	1442.0
216.0	219.62	-1.767	26.303	33.086	26.651	1442.0
217.0	220.67	-1.767	26.303	33.086	26.651	1442.0
218.0	221.67	-1.767	26.304	33.086	26.652	1442.0
219.0	222.69	-1.767	26.304	33.086	26.651	1442.0
220.0	223.71	-1.767	26.304	33.086	26.652	1442.0
221.0	224.67	-1.767	26.305	33.086	26.651	1442.1
222.0	225.74	-1.768	26.306	33.087	26.652	1442.1
223.0	226.69	-1.767	26.306	33.086	26.652	1442.1
224.0	227.76	-1.767	26.307	33.087	26.652	1442.1
225.0	228.72	-1.767	26.307	33.087	26.652	1442.1
226.0	229.77	-1.767	26.307	33.087	26.652	1442.1
227.0	230.76	-1.767	26.308	33.087	26.652	1442.2
228.0	231.79	-1.767	26.309	33.087	26.652	1442.2
229.0	232.79	-1.766	26.310	33.087	26.652	1442.2
230.0	233.80	-1.765	26.311	33.087	26.652	1442.2
231.0	234.82	-1.764	26.313	33.088	26.653	1442.2
232.0	235.82	-1.764	26.314	33.088	26.653	1442.3
233.0	236.85	-1.762	26.315	33.088	26.653	1442.3
234.0	237.85	-1.762	26.316	33.088	26.653	1442.3
235.0	238.86	-1.762	26.317	33.089	26.653	1442.3
236.0	239.86	-1.761	26.319	33.089	26.653	1442.3
237.0	240.86	-1.760	26.320	33.089	26.654	1442.4
238.0	241.89	-1.759	26.322	33.090	26.654	1442.4
239.0	242.92	-1.759	26.322	33.090	26.654	1442.4
240.0	243.88	-1.756	26.325	33.091	26.655	1442.4
241.0	244.91	-1.753	26.328	33.091	26.655	1442.5
242.0	245.94	-1.750	26.332	33.092	26.656	1442.5
243.0	246.94	-1.747	26.336	33.093	26.656	1442.5
244.0	247.92	-1.745	26.338	33.093	26.657	1442.6
245.0	248.95	-1.737	26.346	33.095	26.658	1442.6
246.0	249.99	-1.731	26.353	33.098	26.661	1442.7
247.0	251.01	-1.724	26.361	33.100	26.662	1442.7
248.0	251.99	-1.718	26.369	33.104	26.665	1442.8
249.0	252.97	-1.716	26.371	33.105	26.665	1442.8
250.0	254.03	-1.716	26.373	33.106	26.667	1442.8
251.0	255.06	-1.715	26.374	33.106	26.667	1442.8
252.0	256.06	-1.706	26.385	33.110	26.669	1442.9
253.0	257.03	-1.704	26.386	33.110	26.669	1442.9
254.0	258.05	-1.701	26.390	33.111	26.670	1443.0
255.0	259.08	-1.699	26.393	33.113	26.672	1443.0
256.0	260.11	-1.697	26.395	33.113	26.671	1443.0
257.0	261.12	-1.696	26.397	33.113	26.672	1443.0
258.0	262.09	-1.694	26.399	33.114	26.672	1443.1
259.0	263.10	-1.694	26.400	33.114	26.673	1443.1
260.0	264.15	-1.694	26.401	33.114	26.673	1443.1
261.0	265.17	-1.694	26.401	33.114	26.673	1443.1
262.0	266.17	-1.694	26.401	33.114	26.673	1443.1
263.0	267.18	-1.694	26.402	33.114	26.673	1443.1
264.0	268.14	-1.694	26.403	33.115	26.673	1443.2

EXPERIMENT 3020

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.17	-1.694	26.403	33.115	26.673	1443.2
266.0	270.15	-1.694	26.404	33.115	26.673	1443.2
267.0	271.17	-1.694	26.404	33.115	26.673	1443.2
268.0	272.22	-1.693	26.404	33.114	26.673	1443.2
269.0	273.17	-1.693	26.407	33.117	26.675	1443.2

EXPERIMENT 3021



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3021
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0234
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
1.0	1.73	-1.802	26.039	32.887	26.490	1438.0
2.0	2.73	-1.801	26.035	32.880	26.485	1438.0
3.0	3.82	-1.801	26.039	32.884	26.488	1438.0
4.0	4.86	-1.800	26.051	32.900	26.501	1438.0
5.0	5.90	-1.799	26.077	32.935	26.530	1438.1
6.0	6.97	-1.797	26.089	32.949	26.540	1438.2
7.0	7.90	-1.797	26.097	32.960	26.549	1438.2
8.0	8.95	-1.797	26.101	32.965	26.553	1438.2
9.0	9.97	-1.797	26.103	32.967	26.555	1438.2
10.0	10.94	-1.797	26.106	32.970	26.558	1438.3
11.0	12.00	-1.797	26.109	32.973	26.561	1438.3
12.0	13.03	-1.797	26.109	32.972	26.560	1438.3
13.0	14.01	-1.796	26.113	32.977	26.564	1438.3
14.0	15.08	-1.796	26.117	32.981	26.566	1438.3
15.0	16.06	-1.795	26.120	32.984	26.569	1438.4
16.0	17.07	-1.795	26.123	32.986	26.571	1438.4
17.0	18.13	-1.793	26.127	32.991	26.575	1438.4
18.0	19.09	-1.793	26.129	32.992	26.576	1438.4
19.0	20.15	-1.793	26.132	32.995	26.578	1438.5
20.0	21.16	-1.791	26.135	32.997	26.580	1438.5
21.0	22.15	-1.791	26.136	32.999	26.581	1438.5
22.0	23.22	-1.791	26.138	33.001	26.583	1438.5
23.0	24.17	-1.791	26.140	33.002	26.584	1438.5
24.0	25.22	-1.791	26.142	33.004	26.586	1438.6
25.0	26.22	-1.790	26.143	33.005	26.586	1438.6
26.0	27.23	-1.790	26.147	33.008	26.589	1438.6
27.0	28.24	-1.788	26.152	33.013	26.593	1438.6
28.0	29.23	-1.788	26.153	33.014	26.593	1438.7
29.0	30.29	-1.789	26.151	33.012	26.592	1438.7
30.0	31.29	-1.788	26.153	33.013	26.592	1438.7
31.0	32.32	-1.788	26.154	33.013	26.593	1438.7
32.0	33.29	-1.788	26.155	33.014	26.593	1438.7
33.0	34.29	-1.787	26.157	33.015	26.595	1438.7
34.0	35.34	-1.787	26.159	33.017	26.596	1438.8
35.0	36.35	-1.786	26.160	33.017	26.596	1438.8
36.0	37.31	-1.786	26.160	33.018	26.596	1438.8
37.0	38.38	-1.786	26.161	33.018	26.597	1438.8
38.0	39.39	-1.786	26.163	33.019	26.598	1438.8
39.0	40.37	-1.785	26.164	33.020	26.599	1438.9
40.0	41.41	-1.785	26.165	33.021	26.599	1438.9
41.0	42.42	-1.785	26.166	33.021	26.599	1438.9
42.0	43.39	-1.785	26.166	33.021	26.599	1438.9
43.0	44.46	-1.785	26.167	33.021	26.599	1438.9
44.0	45.46	-1.785	26.168	33.022	26.599	1438.9
45.0	46.45	-1.784	26.170	33.023	26.601	1439.0
46.0	47.51	-1.783	26.174	33.028	26.604	1439.0
47.0	48.53	-1.783	26.175	33.028	26.605	1439.0
48.0	49.49	-1.783	26.176	33.028	26.605	1439.0
49.0	50.56	-1.783	26.177	33.030	26.606	1439.0
50.0	51.57	-1.782	26.181	33.033	26.608	1439.1
51.0	52.56	-1.782	26.182	33.034	26.610	1439.1
52.0	53.61	-1.782	26.183	33.034	26.610	1439.1
53.0	54.61	-1.780	26.185	33.035	26.610	1439.1
54.0	55.61	-1.781	26.185	33.035	26.610	1439.1
55.0	56.66	-1.780	26.187	33.036	26.611	1439.2
56.0	57.67	-1.780	26.187	33.036	26.611	1439.2
57.0	58.66	-1.780	26.189	33.037	26.612	1439.2
58.0	59.72	-1.779	26.190	33.038	26.613	1439.2
59.0	60.72	-1.779	26.191	33.038	26.613	1439.2
60.0	61.75	-1.779	26.192	33.039	26.614	1439.3
61.0	62.76	-1.779	26.192	33.039	26.613	1439.3
62.0	63.74	-1.779	26.193	33.039	26.614	1439.3

EXPERIMENT 3021

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
63.0	64.76	-1.779	26.194	33.039	26.614	1439.3
64.0	65.75	-1.779	26.194	33.039	26.614	1439.3
65.0	66.78	-1.779	26.195	33.040	26.615	1439.3
66.0	67.82	-1.780	26.196	33.042	26.616	1439.4
67.0	68.77	-1.780	26.196	33.042	26.616	1439.4
68.0	69.84	-1.780	26.198	33.043	26.617	1439.4
69.0	70.85	-1.779	26.199	33.043	26.617	1439.4
70.0	71.85	-1.779	26.200	33.044	26.618	1439.4
71.0	72.89	-1.778	26.202	33.045	26.618	1439.5
72.0	73.88	-1.777	26.203	33.045	26.618	1439.5
73.0	74.91	-1.777	26.204	33.046	26.619	1439.5
74.0	75.91	-1.776	26.207	33.048	26.620	1439.5
75.0	76.91	-1.771	26.214	33.052	26.624	1439.6
76.0	77.98	-1.771	26.215	33.052	26.624	1439.6
77.0	78.93	-1.771	26.216	33.053	26.625	1439.6
78.0	79.99	-1.771	26.217	33.054	26.625	1439.6
79.0	80.99	-1.771	26.217	33.053	26.625	1439.6
80.0	82.00	-1.771	26.218	33.054	26.625	1439.7
81.0	83.03	-1.770	26.220	33.055	26.626	1439.7
82.0	84.01	-1.769	26.222	33.057	26.628	1439.7
83.0	85.06	-1.768	26.225	33.059	26.629	1439.7
84.0	86.03	-1.768	26.225	33.059	26.630	1439.7
85.0	87.09	-1.768	26.226	33.059	26.630	1439.8
86.0	88.07	-1.768	26.227	33.060	26.630	1439.8
87.0	89.10	-1.768	26.228	33.061	26.631	1439.8
88.0	90.10	-1.767	26.229	33.061	26.631	1439.8
89.0	91.12	-1.767	26.230	33.061	26.631	1439.8
90.0	92.14	-1.767	26.231	33.062	26.632	1439.9
91.0	93.14	-1.767	26.231	33.061	26.631	1439.9
92.0	94.17	-1.767	26.232	33.062	26.632	1439.9
93.0	95.17	-1.767	26.232	33.062	26.632	1439.9
94.0	96.22	-1.767	26.233	33.062	26.632	1439.9
95.0	97.19	-1.766	26.235	33.063	26.633	1440.0
96.0	98.24	-1.765	26.237	33.064	26.633	1440.0
97.0	99.21	-1.765	26.237	33.064	26.633	1440.0
98.0	100.26	-1.765	26.239	33.066	26.635	1440.0
99.0	101.23	-1.764	26.240	33.065	26.635	1440.0
100.0	102.29	-1.763	26.241	33.066	26.635	1440.1
101.0	103.24	-1.763	26.242	33.066	26.635	1440.1
102.0	104.30	-1.763	26.243	33.067	26.636	1440.1
103.0	105.35	-1.763	26.243	33.067	26.636	1440.1
104.0	106.32	-1.763	26.245	33.068	26.636	1440.1
105.0	107.36	-1.763	26.245	33.068	26.636	1440.1
106.0	108.35	-1.763	26.245	33.067	26.636	1440.2
107.0	109.35	-1.763	26.246	33.068	26.637	1440.2
108.0	110.39	-1.763	26.247	33.068	26.637	1440.2
109.0	111.40	-1.763	26.248	33.069	26.638	1440.2
110.0	112.40	-1.763	26.250	33.070	26.638	1440.2
111.0	113.44	-1.763	26.251	33.071	26.639	1440.3
112.0	114.39	-1.763	26.252	33.071	26.639	1440.3
113.0	115.47	-1.763	26.253	33.072	26.640	1440.3
114.0	116.44	-1.763	26.253	33.071	26.639	1440.3
115.0	117.47	-1.763	26.253	33.072	26.640	1440.3
116.0	118.52	-1.763	26.254	33.072	26.640	1440.4
117.0	119.48	-1.763	26.254	33.071	26.639	1440.4
118.0	120.54	-1.763	26.254	33.071	26.639	1440.4
119.0	121.56	-1.763	26.255	33.071	26.639	1440.4
120.0	122.54	-1.762	26.256	33.072	26.640	1440.4
121.0	123.61	-1.762	26.257	33.072	26.640	1440.5
122.0	124.57	-1.762	26.258	33.072	26.640	1440.5
123.0	125.60	-1.762	26.258	33.072	26.640	1440.5
124.0	126.62	-1.761	26.259	33.072	26.640	1440.5
125.0	127.60	-1.761	26.259	33.072	26.640	1440.5
126.0	128.68	-1.761	26.259	33.072	26.640	1440.5
127.0	129.64	-1.761	26.259	33.072	26.640	1440.5
128.0	130.71	-1.762	26.260	33.072	26.640	1440.5
129.0	131.67	-1.762	26.260	33.072	26.640	1440.5

EXPERIMENT 3021

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
130.0	132.71	-1.762	26.260	33.072	26.640	1440.6
131.0	133.72	-1.761	26.260	33.072	26.640	1440.6
132.0	134.71	-1.761	26.261	33.072	26.640	1440.6
133.0	135.79	-1.761	26.262	33.072	26.640	1440.6
134.0	136.75	-1.761	26.262	33.073	26.640	1440.6
135.0	137.82	-1.761	26.263	33.073	26.641	1440.6
136.0	138.77	-1.761	26.263	33.073	26.640	1440.7
137.0	139.83	-1.761	26.264	33.073	26.641	1440.7
138.0	140.83	-1.761	26.264	33.072	26.640	1440.7
139.0	141.85	-1.761	26.265	33.073	26.640	1440.7
140.0	142.87	-1.761	26.265	33.072	26.640	1440.7
141.0	143.88	-1.761	26.266	33.073	26.641	1440.7
142.0	144.91	-1.761	26.266	33.073	26.640	1440.8
143.0	145.90	-1.761	26.267	33.073	26.641	1440.8
144.0	146.95	-1.760	26.267	33.073	26.640	1440.8
145.0	147.92	-1.761	26.268	33.073	26.641	1440.8
146.0	148.98	-1.761	26.269	33.074	26.641	1440.8
147.0	149.96	-1.761	26.269	33.073	26.641	1440.8
148.0	151.02	-1.761	26.269	33.073	26.641	1440.9
149.0	151.98	-1.761	26.270	33.074	26.641	1440.9
150.0	153.03	-1.760	26.271	33.074	26.641	1440.9
151.0	154.02	-1.760	26.271	33.074	26.641	1440.9
152.0	155.07	-1.760	26.272	33.074	26.641	1440.9
153.0	156.04	-1.760	26.272	33.073	26.641	1440.9
154.0	157.08	-1.760	26.273	33.074	26.642	1441.0
155.0	158.08	-1.760	26.273	33.074	26.641	1441.0
156.0	159.12	-1.761	26.275	33.076	26.643	1441.0
157.0	160.10	-1.760	26.275	33.075	26.642	1441.0
158.0	161.15	-1.760	26.276	33.076	26.643	1441.0
159.0	162.13	-1.760	26.277	33.076	26.643	1441.1
160.0	163.17	-1.759	26.277	33.075	26.643	1441.1
161.0	164.14	-1.759	26.278	33.076	26.643	1441.1
162.0	165.20	-1.759	26.278	33.076	26.643	1441.1
163.0	166.18	-1.759	26.279	33.075	26.642	1441.1
164.0	167.25	-1.759	26.279	33.075	26.643	1441.1
165.0	168.20	-1.759	26.280	33.076	26.643	1441.2
166.0	169.25	-1.759	26.281	33.076	26.643	1441.2
167.0	170.24	-1.759	26.281	33.076	26.643	1441.2
168.0	171.28	-1.759	26.281	33.076	26.643	1441.2
169.0	172.28	-1.760	26.281	33.076	26.643	1441.2
170.0	173.32	-1.759	26.282	33.076	26.643	1441.2
171.0	174.28	-1.759	26.283	33.076	26.643	1441.3
172.0	175.33	-1.760	26.282	33.076	26.643	1441.3
173.0	176.35	-1.760	26.283	33.076	26.643	1441.3
174.0	177.33	-1.760	26.283	33.076	26.643	1441.3
175.0	178.37	-1.761	26.283	33.076	26.643	1441.3
176.0	179.33	-1.760	26.284	33.076	26.643	1441.3
177.0	180.40	-1.760	26.285	33.077	26.644	1441.4
178.0	181.38	-1.760	26.285	33.077	26.644	1441.4
179.0	182.42	-1.760	26.286	33.077	26.644	1441.4
180.0	183.43	-1.759	26.287	33.077	26.644	1441.4
181.0	184.41	-1.758	26.288	33.077	26.644	1441.4
182.0	185.46	-1.758	26.289	33.077	26.644	1441.4
183.0	186.45	-1.758	26.290	33.077	26.644	1441.5
184.0	187.48	-1.758	26.291	33.078	26.645	1441.5
185.0	188.48	-1.758	26.290	33.078	26.644	1441.5
186.0	189.49	-1.757	26.293	33.079	26.645	1441.5
187.0	190.54	-1.756	26.293	33.079	26.645	1441.5
188.0	191.49	-1.757	26.294	33.079	26.645	1441.6
189.0	192.57	-1.756	26.294	33.078	26.645	1441.6
190.0	193.54	-1.756	26.295	33.079	26.645	1441.6
191.0	194.57	-1.756	26.296	33.079	26.646	1441.6
192.0	195.58	-1.756	26.297	33.079	26.645	1441.6
193.0	196.59	-1.755	26.297	33.079	26.646	1441.6
194.0	197.60	-1.755	26.298	33.079	26.646	1441.7
195.0	198.61	-1.755	26.299	33.080	26.646	1441.7
196.0	199.64	-1.755	26.300	33.080	26.646	1441.7

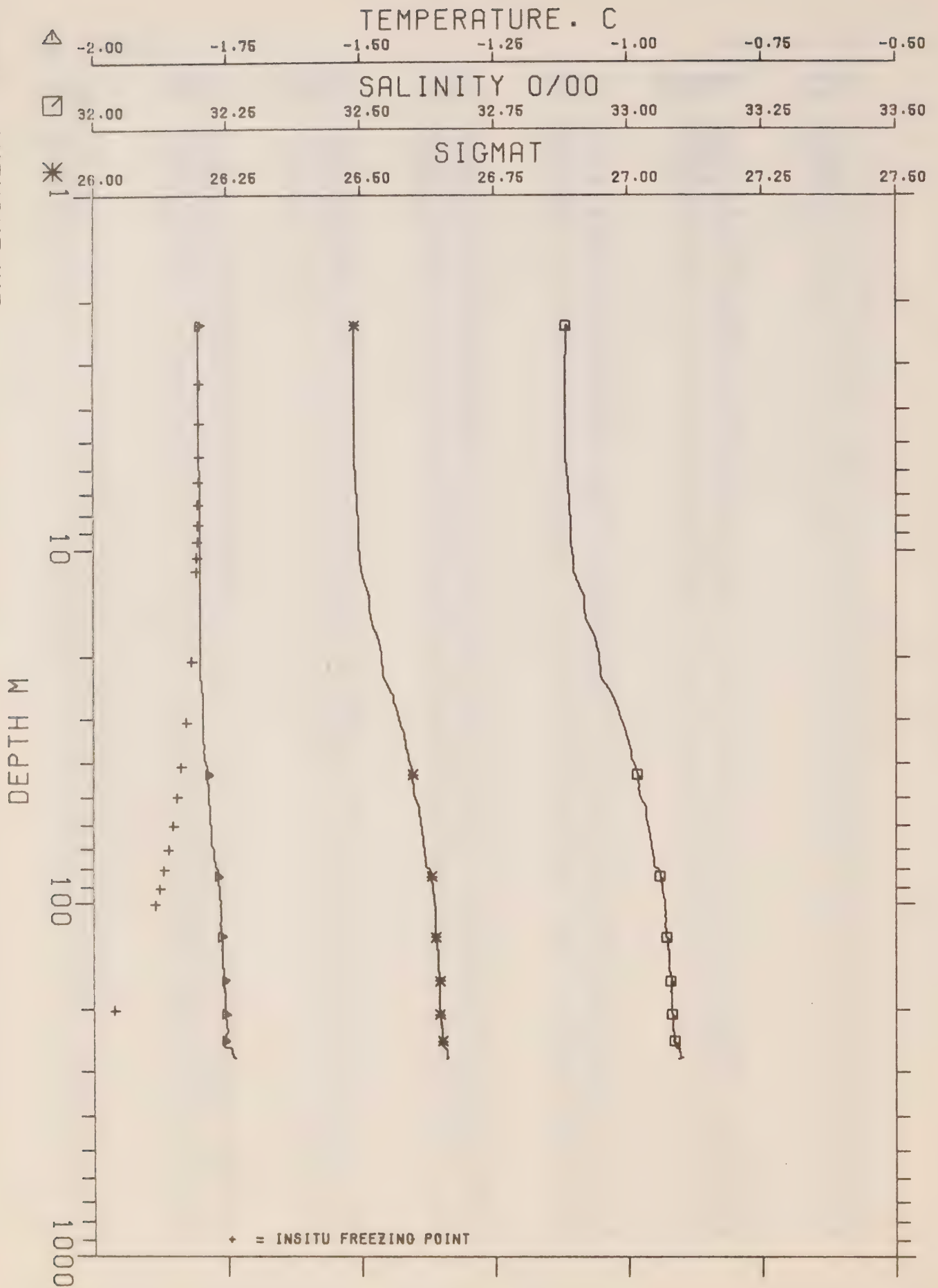
EXPERIMENT 3021

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
197.0	200.63	-1.754	26.301	33.081	26.647	1441.7
198.0	201.71	-1.754	26.302	33.081	26.647	1441.7
199.0	202.64	-1.753	26.303	33.081	26.647	1441.8
200.0	203.72	-1.753	26.304	33.082	26.647	1441.8
201.0	204.67	-1.753	26.305	33.082	26.648	1441.8
202.0	205.75	-1.752	26.306	33.082	26.648	1441.8
203.0	206.69	-1.752	26.306	33.082	26.648	1441.8
204.0	207.76	-1.751	26.308	33.083	26.648	1441.9
205.0	208.74	-1.751	26.309	33.083	26.649	1441.9
206.0	209.78	-1.754	26.308	33.084	26.649	1441.9
207.0	210.74	-1.754	26.308	33.084	26.649	1441.9
208.0	211.80	-1.754	26.309	33.084	26.649	1441.9
209.0	212.80	-1.757	26.307	33.084	26.650	1441.9
210.0	213.82	-1.757	26.307	33.084	26.650	1441.9
211.0	214.82	-1.757	26.308	33.085	26.650	1441.9
212.0	215.86	-1.758	26.308	33.084	26.650	1442.0
213.0	216.85	-1.758	26.308	33.085	26.651	1442.0
214.0	217.87	-1.759	26.308	33.085	26.650	1442.0
215.0	218.90	-1.759	26.308	33.085	26.650	1442.0
216.0	219.92	-1.759	26.308	33.085	26.650	1442.0
217.0	220.93	-1.760	26.309	33.085	26.651	1442.0
218.0	221.93	-1.758	26.310	33.085	26.650	1442.1
219.0	222.96	-1.758	26.311	33.085	26.650	1442.1
220.0	223.96	-1.761	26.310	33.086	26.651	1442.1
221.0	224.99	-1.761	26.310	33.086	26.651	1442.1
222.0	225.98	-1.761	26.310	33.086	26.651	1442.1
223.0	226.99	-1.759	26.311	33.085	26.650	1442.1
224.0	228.00	-1.761	26.311	33.086	26.651	1442.1
225.0	229.05	-1.761	26.311	33.086	26.651	1442.2
226.0	230.01	-1.762	26.311	33.086	26.652	1442.2
227.0	231.05	-1.763	26.311	33.086	26.651	1442.2
228.0	232.04	-1.763	26.311	33.086	26.651	1442.2
229.0	233.08	-1.763	26.312	33.086	26.652	1442.2
230.0	234.06	-1.763	26.312	33.086	26.651	1442.2
231.0	235.11	-1.763	26.312	33.086	26.651	1442.2
232.0	236.10	-1.763	26.313	33.086	26.651	1442.3
233.0	237.13	-1.763	26.313	33.087	26.652	1442.3
234.0	238.11	-1.763	26.314	33.087	26.652	1442.3
235.0	239.17	-1.763	26.314	33.087	26.652	1442.3
236.0	240.15	-1.764	26.315	33.087	26.652	1442.3
237.0	241.18	-1.763	26.315	33.087	26.652	1442.3
238.0	242.18	-1.763	26.316	33.087	26.652	1442.4
239.0	243.23	-1.763	26.316	33.087	26.652	1442.4
240.0	244.23	-1.763	26.317	33.087	26.652	1442.4
241.0	245.21	-1.763	26.317	33.087	26.652	1442.4
242.0	246.27	-1.763	26.318	33.087	26.652	1442.4
243.0	247.27	-1.763	26.318	33.087	26.652	1442.4
244.0	248.26	-1.762	26.319	33.087	26.652	1442.5
245.0	249.32	-1.762	26.321	33.088	26.653	1442.5
246.0	250.29	-1.761	26.322	33.088	26.653	1442.5
247.0	251.30	-1.760	26.324	33.089	26.653	1442.5
248.0	252.34	-1.759	26.325	33.089	26.653	1442.6
249.0	253.36	-1.750	26.334	33.092	26.655	1442.6
250.0	254.34	-1.749	26.336	33.092	26.656	1442.6
251.0	255.38	-1.747	26.339	33.093	26.656	1442.7
252.0	256.40	-1.739	26.346	33.093	26.656	1442.7
253.0	257.40	-1.736	26.351	33.096	26.659	1442.8
254.0	258.40	-1.736	26.353	33.098	26.660	1442.8
255.0	259.42	-1.733	26.356	33.098	26.661	1442.8
256.0	260.46	-1.730	26.359	33.099	26.661	1442.8
257.0	261.47	-1.726	26.364	33.101	26.663	1442.9
258.0	262.46	-1.727	26.363	33.101	26.662	1442.9
259.0	263.50	-1.727	26.365	33.102	26.663	1442.9
260.0	264.55	-1.725	26.368	33.103	26.664	1442.9
261.0	265.54	-1.724	26.369	33.103	26.664	1443.0
262.0	266.53	-1.722	26.371	33.103	26.664	1443.0
263.0	267.55	-1.721	26.374	33.104	26.665	1443.0

EXPERIMENT 3021

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
264.0	268.58	-1.716	26.377	33.104	26.665	1443.0
265.0	269.61	-1.712	26.386	33.111	26.671	1443.1
266.0	270.55	-1.712	26.382	33.106	26.666	1443.1
267.0	271.54	-1.711	26.385	33.108	26.668	1443.1
268.0	272.58	-1.707	26.387	33.106	26.666	1443.2
269.0	273.57	-1.706	26.390	33.107	26.667	1443.2

EXPERIMENT 3022



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3022
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0337
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.34	-1.802	26.037	32.884	26.488	1438.0
3.0	3.41	-1.802	26.037	32.883	26.487	1438.0
4.0	4.41	-1.801	26.037	32.882	26.487	1438.0
5.0	5.48	-1.801	26.038	32.883	26.488	1438.0
6.0	6.45	-1.801	26.042	32.888	26.491	1438.0
7.0	7.47	-1.800	26.045	32.891	26.494	1438.1
8.0	8.52	-1.800	26.047	32.893	26.495	1438.1
9.0	9.49	-1.800	26.048	32.893	26.496	1438.1
10.0	10.55	-1.800	26.051	32.897	26.499	1438.1
11.0	11.55	-1.800	26.053	32.899	26.500	1438.1
12.0	12.53	-1.800	26.060	32.908	26.508	1438.2
13.0	13.57	-1.799	26.067	32.917	26.515	1438.2
14.0	14.55	-1.799	26.069	32.918	26.516	1438.2
15.0	15.61	-1.800	26.070	32.920	26.517	1438.2
16.0	16.59	-1.800	26.076	32.927	26.523	1438.3
17.0	17.63	-1.800	26.083	32.937	26.531	1438.3
18.0	18.67	-1.799	26.087	32.941	26.534	1438.3
19.0	19.66	-1.799	26.091	32.946	26.538	1438.3
20.0	20.70	-1.799	26.091	32.945	26.538	1438.4
21.0	21.67	-1.799	26.093	32.947	26.539	1438.4
22.0	22.72	-1.799	26.093	32.946	26.539	1438.4
23.0	23.71	-1.798	26.101	32.956	26.547	1438.4
24.0	24.74	-1.797	26.108	32.964	26.553	1438.5
25.0	25.72	-1.796	26.114	32.971	26.559	1438.5
26.0	26.76	-1.796	26.117	32.974	26.561	1438.5
27.0	27.77	-1.795	26.121	32.979	26.565	1438.5
28.0	28.77	-1.795	26.124	32.982	26.568	1438.6
29.0	29.83	-1.795	26.127	32.986	26.571	1438.6
30.0	30.80	-1.795	26.130	32.989	26.573	1438.6
31.0	31.87	-1.795	26.132	32.991	26.575	1438.6
32.0	32.83	-1.796	26.135	32.996	26.579	1438.7
33.0	33.81	-1.796	26.137	32.997	26.580	1438.7
34.0	34.89	-1.794	26.140	33.000	26.582	1438.7
35.0	35.86	-1.793	26.143	33.002	26.584	1438.7
36.0	36.87	-1.794	26.144	33.004	26.585	1438.7
37.0	37.93	-1.793	26.146	33.005	26.586	1438.8
38.0	38.93	-1.791	26.149	33.006	26.587	1438.8
39.0	39.93	-1.790	26.152	33.009	26.589	1438.8
40.0	40.99	-1.788	26.157	33.013	26.593	1438.8
41.0	41.96	-1.787	26.161	33.016	26.595	1438.9
42.0	42.99	-1.787	26.162	33.017	26.596	1438.9
43.0	44.02	-1.786	26.162	33.017	26.595	1438.9
44.0	45.01	-1.786	26.163	33.017	26.596	1438.9
45.0	46.04	-1.786	26.165	33.019	26.597	1438.9
46.0	47.04	-1.786	26.166	33.019	26.597	1439.0
47.0	48.03	-1.785	26.167	33.020	26.598	1439.0
48.0	49.10	-1.786	26.168	33.020	26.598	1439.0
49.0	50.06	-1.785	26.170	33.021	26.599	1439.0
50.0	51.08	-1.785	26.173	33.025	26.603	1439.0
51.0	52.13	-1.784	26.177	33.030	26.606	1439.1
52.0	53.08	-1.783	26.180	33.031	26.607	1439.1
53.0	54.15	-1.783	26.181	33.032	26.608	1439.1
54.0	55.16	-1.782	26.181	33.032	26.608	1439.1
55.0	56.15	-1.783	26.182	33.033	26.609	1439.1
56.0	57.22	-1.782	26.183	33.033	26.609	1439.2
57.0	58.17	-1.782	26.185	33.034	26.609	1439.2
58.0	59.22	-1.781	26.186	33.035	26.610	1439.2
59.0	60.25	-1.781	26.188	33.037	26.612	1439.2
60.0	61.26	-1.781	26.190	33.038	26.612	1439.2
61.0	62.31	-1.780	26.191	33.038	26.613	1439.3
62.0	63.27	-1.780	26.192	33.039	26.613	1439.3
63.0	64.37	-1.780	26.193	33.040	26.614	1439.3

EXPERIMENT 3022

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/gg)	SIGMAT	SOUND (M/SEC)
64.0	65.32	-1.779	26.194	33.040	26.615	1439.3
65.0	66.35	-1.779	26.196	33.041	26.615	1439.3
66.0	67.35	-1.779	26.196	33.042	26.616	1439.4
67.0	68.33	-1.779	26.196	33.041	26.615	1439.4
68.0	69.40	-1.779	26.198	33.043	26.617	1439.4
69.0	70.37	-1.775	26.203	33.045	26.618	1439.4
70.0	71.43	-1.776	26.203	33.045	26.618	1439.4
71.0	72.41	-1.775	26.204	33.046	26.619	1439.5
72.0	73.46	-1.775	26.206	33.046	26.619	1439.5
73.0	74.47	-1.774	26.207	33.046	26.619	1439.5
74.0	75.48	-1.774	26.207	33.046	26.619	1439.5
75.0	76.51	-1.772	26.210	33.048	26.621	1439.6
76.0	77.50	-1.772	26.211	33.048	26.621	1439.6
77.0	78.54	-1.773	26.211	33.048	26.621	1439.6
78.0	79.52	-1.770	26.219	33.056	26.627	1439.6
79.0	80.56	-1.768	26.222	33.058	26.629	1439.6
80.0	81.52	-1.768	26.223	33.059	26.629	1439.7
81.0	82.62	-1.768	26.224	33.059	26.630	1439.7
82.0	83.58	-1.768	26.225	33.060	26.630	1439.7
83.0	84.64	-1.768	26.226	33.060	26.631	1439.7
84.0	85.60	-1.768	26.227	33.061	26.631	1439.7
85.0	86.67	-1.768	26.227	33.060	26.630	1439.8
86.0	87.64	-1.767	26.229	33.062	26.631	1439.8
87.0	88.71	-1.766	26.230	33.063	26.632	1439.8
88.0	89.66	-1.766	26.231	33.063	26.633	1439.8
89.0	90.72	-1.766	26.232	33.063	26.633	1439.8
90.0	91.69	-1.766	26.232	33.063	26.633	1439.9
91.0	92.76	-1.766	26.233	33.064	26.633	1439.9
92.0	93.74	-1.766	26.235	33.065	26.634	1439.9
93.0	94.79	-1.765	26.236	33.065	26.634	1439.9
94.0	95.77	-1.764	26.237	33.065	26.634	1439.9
95.0	96.82	-1.764	26.239	33.067	26.636	1440.0
96.0	97.78	-1.764	26.240	33.067	26.636	1440.0
97.0	98.87	-1.763	26.240	33.067	26.636	1440.0
98.0	99.82	-1.764	26.241	33.068	26.637	1440.0
99.0	100.89	-1.764	26.241	33.067	26.636	1440.0
100.0	101.85	-1.764	26.242	33.068	26.637	1440.0
101.0	102.89	-1.763	26.243	33.068	26.637	1440.1
102.0	103.86	-1.763	26.243	33.068	26.637	1440.1
103.0	104.92	-1.763	26.244	33.069	26.638	1440.1
104.0	105.96	-1.763	26.245	33.069	26.637	1440.1
105.0	106.93	-1.763	26.245	33.069	26.637	1440.1
106.0	108.00	-1.763	26.246	33.069	26.637	1440.1
107.0	108.99	-1.763	26.246	33.069	26.637	1440.2
108.0	110.01	-1.763	26.247	33.069	26.637	1440.2
109.0	111.04	-1.763	26.248	33.070	26.638	1440.2
110.0	112.02	-1.764	26.248	33.070	26.638	1440.2
111.0	113.09	-1.764	26.247	33.068	26.637	1440.2
112.0	114.04	-1.764	26.247	33.068	26.637	1440.2
113.0	115.11	-1.764	26.248	33.068	26.637	1440.3
114.0	116.06	-1.763	26.249	33.069	26.637	1440.3
115.0	117.12	-1.763	26.250	33.069	26.637	1440.3
116.0	118.14	-1.762	26.251	33.069	26.638	1440.3
117.0	119.12	-1.762	26.252	33.070	26.638	1440.3
118.0	120.18	-1.762	26.253	33.070	26.638	1440.3
119.0	121.16	-1.762	26.253	33.070	26.638	1440.4
120.0	122.18	-1.762	26.253	33.070	26.638	1440.4
121.0	123.20	-1.762	26.254	33.070	26.638	1440.4
122.0	124.22	-1.762	26.255	33.070	26.639	1440.4
123.0	125.26	-1.762	26.256	33.072	26.640	1440.4
124.0	126.24	-1.762	26.257	33.072	26.640	1440.4
125.0	127.29	-1.762	26.258	33.072	26.640	1440.5
126.0	128.26	-1.761	26.259	33.072	26.640	1440.5
127.0	129.32	-1.761	26.259	33.073	26.640	1440.5
128.0	130.29	-1.761	26.259	33.072	26.640	1440.5
129.0	131.35	-1.762	26.260	33.073	26.641	1440.5
130.0	132.32	-1.761	26.261	33.073	26.641	1440.6

EXPERIMENT 3022

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	133.37	-1.760	26.262	33.073	26.641	1440.6
132.0	134.38	-1.762	26.261	33.073	26.641	1440.6
133.0	135.38	-1.761	26.263	33.074	26.641	1440.6
134.0	136.40	-1.760	26.264	33.074	26.642	1440.6
135.0	137.40	-1.760	26.265	33.074	26.641	1440.6
136.0	138.47	-1.760	26.266	33.075	26.642	1440.7
137.0	139.43	-1.760	26.266	33.075	26.642	1440.7
138.0	140.48	-1.760	26.266	33.075	26.642	1440.7
139.0	141.46	-1.760	26.267	33.075	26.642	1440.7
140.0	142.52	-1.760	26.268	33.075	26.642	1440.7
141.0	143.49	-1.760	26.268	33.075	26.642	1440.7
142.0	144.55	-1.760	26.268	33.075	26.642	1440.8
143.0	145.52	-1.760	26.269	33.075	26.642	1440.8
144.0	146.58	-1.760	26.269	33.075	26.642	1440.8
145.0	147.55	-1.760	26.270	33.075	26.642	1440.8
146.0	148.60	-1.759	26.271	33.075	26.642	1440.8
147.0	149.59	-1.760	26.271	33.075	26.642	1440.8
148.0	150.65	-1.759	26.271	33.075	26.642	1440.9
149.0	151.60	-1.759	26.272	33.075	26.642	1440.9
150.0	152.65	-1.759	26.273	33.076	26.643	1440.9
151.0	153.65	-1.758	26.275	33.076	26.643	1440.9
152.0	154.68	-1.758	26.275	33.076	26.643	1440.9
153.0	155.67	-1.757	26.277	33.077	26.644	1441.0
154.0	156.72	-1.757	26.277	33.077	26.644	1441.0
155.0	157.71	-1.757	26.278	33.078	26.645	1441.0
156.0	158.75	-1.757	26.279	33.078	26.645	1441.0
157.0	159.73	-1.757	26.281	33.079	26.646	1441.0
158.0	160.78	-1.757	26.281	33.080	26.646	1441.0
159.0	161.76	-1.757	26.281	33.079	26.646	1441.1
160.0	162.79	-1.757	26.282	33.080	26.646	1441.1
161.0	163.80	-1.757	26.282	33.079	26.646	1441.1
162.0	164.83	-1.757	26.283	33.079	26.645	1441.1
163.0	165.86	-1.757	26.283	33.079	26.646	1441.1
164.0	166.84	-1.757	26.284	33.079	26.646	1441.2
165.0	167.89	-1.756	26.284	33.079	26.646	1441.2
166.0	168.86	-1.756	26.285	33.079	26.646	1441.2
167.0	169.94	-1.756	26.285	33.079	26.646	1441.2
168.0	170.91	-1.757	26.285	33.079	26.645	1441.2
169.0	171.92	-1.756	26.286	33.079	26.646	1441.2
170.0	172.92	-1.756	26.287	33.079	26.646	1441.3
171.0	173.95	-1.756	26.287	33.079	26.646	1441.3
172.0	174.95	-1.756	26.287	33.079	26.646	1441.3
173.0	176.02	-1.756	26.288	33.079	26.646	1441.3
174.0	176.96	-1.756	26.288	33.079	26.645	1441.3
175.0	178.02	-1.756	26.289	33.079	26.646	1441.3
176.0	179.02	-1.756	26.289	33.079	26.645	1441.4
177.0	180.04	-1.756	26.290	33.079	26.646	1441.4
178.0	181.08	-1.756	26.290	33.079	26.646	1441.4
179.0	182.04	-1.756	26.291	33.079	26.646	1441.4
180.0	183.11	-1.756	26.291	33.079	26.645	1441.4
181.0	184.07	-1.756	26.292	33.079	26.646	1441.4
182.0	185.13	-1.756	26.292	33.079	26.645	1441.5
183.0	186.11	-1.756	26.293	33.079	26.645	1441.5
184.0	187.16	-1.756	26.293	33.079	26.646	1441.5
185.0	188.18	-1.756	26.293	33.079	26.646	1441.5
186.0	189.17	-1.756	26.294	33.080	26.646	1441.5
187.0	190.20	-1.756	26.295	33.079	26.646	1441.5
188.0	191.17	-1.756	26.295	33.079	26.646	1441.6
189.0	192.23	-1.755	26.296	33.079	26.646	1441.6
190.0	193.21	-1.756	26.296	33.079	26.646	1441.6
191.0	194.27	-1.756	26.296	33.079	26.646	1441.6
192.0	195.23	-1.755	26.297	33.079	26.645	1441.6
193.0	196.30	-1.755	26.297	33.079	26.646	1441.6
194.0	197.27	-1.755	26.298	33.080	26.646	1441.7
195.0	198.33	-1.755	26.299	33.080	26.646	1441.7
196.0	199.30	-1.755	26.299	33.080	26.646	1441.7
197.0	200.36	-1.755	26.300	33.080	26.646	1441.7

EXPERIMENT 3022

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.32	-1.755	26.300	33.081	26.647	1441.7
199.0	202.39	-1.755	26.301	33.081	26.647	1441.7
200.0	203.36	-1.755	26.302	33.081	26.647	1441.8
201.0	204.40	-1.755	26.302	33.081	26.647	1441.8
202.0	205.39	-1.755	26.303	33.081	26.647	1441.8
203.0	206.43	-1.755	26.303	33.082	26.648	1441.8
204.0	207.42	-1.755	26.304	33.082	26.647	1441.8
205.0	208.45	-1.755	26.305	33.082	26.648	1441.8
206.0	209.47	-1.755	26.305	33.082	26.647	1441.9
207.0	210.48	-1.755	26.306	33.082	26.648	1441.9
208.0	211.50	-1.754	26.307	33.082	26.648	1441.9
209.0	212.52	-1.753	26.308	33.083	26.648	1441.9
210.0	213.53	-1.753	26.309	33.083	26.648	1441.9
211.0	214.54	-1.753	26.309	33.082	26.648	1442.0
212.0	215.55	-1.753	26.310	33.083	26.649	1442.0
213.0	216.56	-1.753	26.311	33.084	26.649	1442.0
214.0	217.59	-1.753	26.311	33.083	26.648	1442.0
215.0	218.60	-1.753	26.311	33.083	26.649	1442.0
216.0	219.63	-1.753	26.312	33.083	26.648	1442.0
217.0	220.60	-1.753	26.313	33.084	26.649	1442.1
218.0	221.67	-1.753	26.313	33.083	26.649	1442.1
219.0	222.62	-1.752	26.314	33.083	26.649	1442.1
220.0	223.70	-1.752	26.314	33.083	26.649	1442.1
221.0	224.69	-1.752	26.315	33.083	26.649	1442.1
222.0	225.72	-1.751	26.317	33.084	26.649	1442.1
223.0	226.68	-1.750	26.318	33.084	26.649	1442.2
224.0	227.73	-1.751	26.317	33.084	26.649	1442.2
225.0	228.74	-1.751	26.318	33.084	26.649	1442.2
226.0	229.76	-1.751	26.319	33.084	26.649	1442.2
227.0	230.81	-1.750	26.320	33.084	26.650	1442.2
228.0	231.77	-1.752	26.319	33.085	26.650	1442.2
229.0	232.82	-1.753	26.319	33.085	26.650	1442.3
230.0	233.79	-1.754	26.319	33.085	26.650	1442.3
231.0	234.85	-1.754	26.319	33.086	26.651	1442.3
232.0	235.85	-1.754	26.320	33.085	26.650	1442.3
233.0	236.86	-1.753	26.321	33.085	26.650	1442.3
234.0	237.92	-1.756	26.319	33.086	26.651	1442.3
235.0	238.87	-1.756	26.320	33.086	26.651	1442.3
236.0	239.93	-1.757	26.320	33.086	26.651	1442.4
237.0	240.93	-1.756	26.320	33.086	26.651	1442.4
238.0	241.91	-1.756	26.321	33.086	26.651	1442.4
239.0	242.92	-1.756	26.321	33.086	26.651	1442.4
240.0	243.93	-1.756	26.322	33.086	26.651	1442.4
241.0	244.98	-1.757	26.322	33.087	26.652	1442.4
242.0	246.00	-1.757	26.322	33.086	26.651	1442.5
243.0	247.00	-1.757	26.323	33.086	26.651	1442.5
244.0	247.98	-1.757	26.323	33.087	26.652	1442.5
245.0	249.02	-1.757	26.324	33.087	26.652	1442.5
246.0	250.04	-1.758	26.324	33.087	26.652	1442.5
247.0	251.08	-1.757	26.326	33.089	26.654	1442.5
248.0	252.08	-1.757	26.326	33.088	26.653	1442.6
249.0	253.09	-1.758	26.326	33.088	26.653	1442.6
250.0	254.10	-1.756	26.328	33.089	26.654	1442.6
251.0	255.11	-1.752	26.333	33.091	26.655	1442.6
252.0	256.12	-1.745	26.342	33.094	26.658	1442.7
253.0	257.17	-1.744	26.344	33.095	26.658	1442.7
254.0	258.17	-1.742	26.346	33.096	26.659	1442.7
255.0	259.17	-1.742	26.347	33.096	26.659	1442.8
256.0	260.19	-1.742	26.347	33.096	26.659	1442.8
257.0	261.20	-1.742	26.348	33.096	26.659	1442.8
258.0	262.24	-1.741	26.349	33.096	26.659	1442.8
259.0	263.25	-1.742	26.349	33.096	26.659	1442.8
260.0	264.28	-1.741	26.350	33.097	26.660	1442.8
261.0	265.27	-1.741	26.351	33.097	26.660	1442.9
262.0	266.27	-1.741	26.351	33.097	26.660	1442.9
263.0	267.25	-1.740	26.352	33.097	26.660	1442.9
264.0	268.36	-1.740	26.353	33.097	26.659	1442.9

EXPERIMENT 3022

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.35	-1.740	26.354	33.098	26.661	1442.9
266.0	270.35	-1.740	26.354	33.098	26.660	1443.0
267.0	271.33	-1.739	26.359	33.102	26.664	1443.0
268.0	272.37	-1.738	26.357	33.098	26.661	1443.0
269.0	273.42	-1.737	26.358	33.098	26.661	1443.0
270.0	273.60	-1.735	26.357	33.093	26.657	1443.0

EXPERIMENT 3023

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

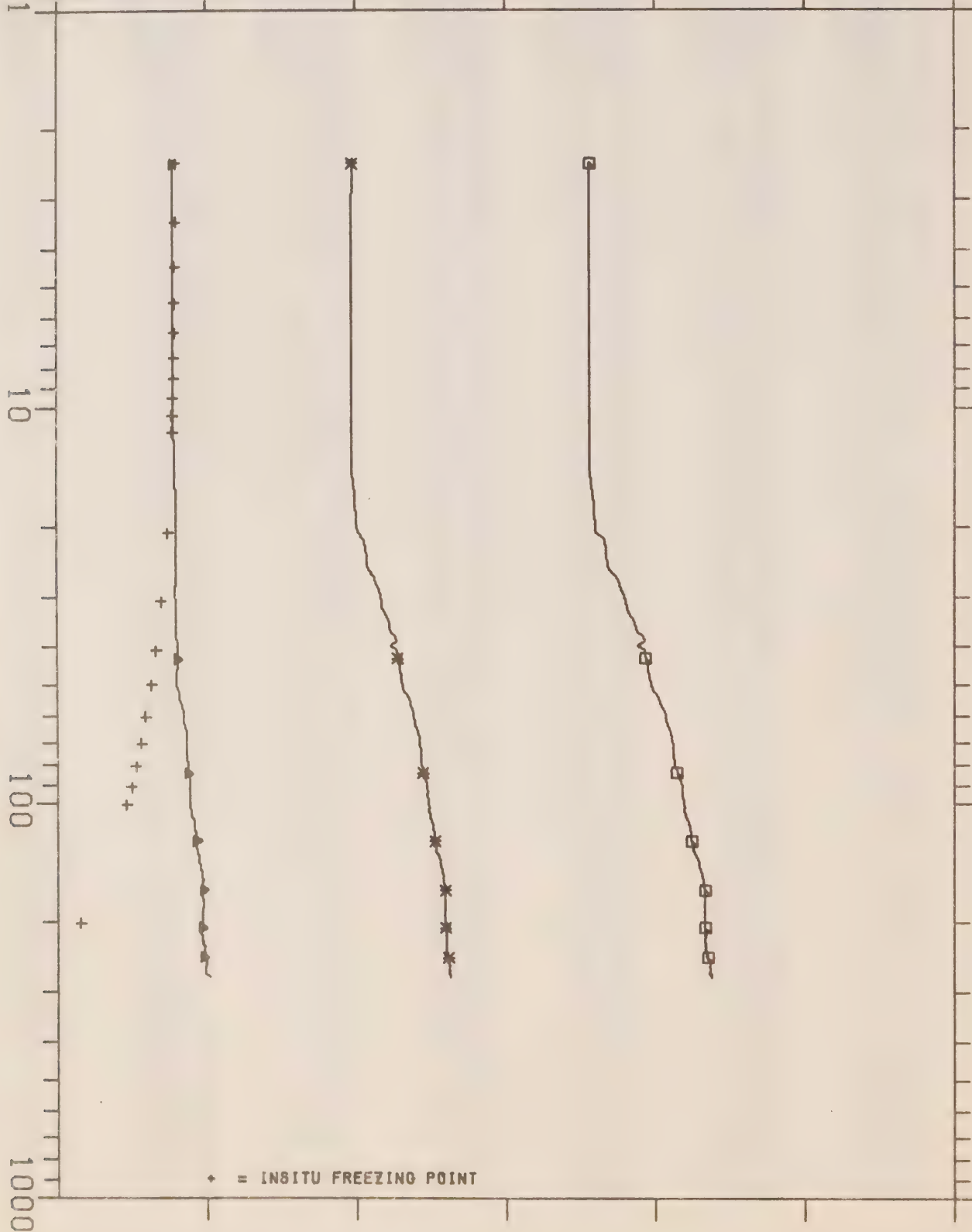
SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3023
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0438
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (g/g)	SIGMAT	SOUND (M/SEC)
2.0	2.44	-1.805	26.040	32.891	26.494	1438.0
3.0	3.43	-1.804	26.040	32.890	26.493	1438.0
4.0	4.45	-1.804	26.040	32.890	26.493	1438.0
5.0	5.49	-1.804	26.040	32.889	26.493	1438.0
6.0	6.52	-1.804	26.041	32.889	26.493	1438.0
7.0	7.51	-1.804	26.041	32.890	26.493	1438.0
8.0	8.54	-1.804	26.042	32.890	26.493	1438.1
9.0	9.56	-1.804	26.042	32.890	26.493	1438.1
10.0	10.55	-1.804	26.043	32.890	26.493	1438.1
11.0	11.60	-1.804	26.044	32.890	26.493	1438.1
12.0	12.59	-1.803	26.045	32.890	26.493	1438.1
13.0	13.57	-1.803	26.045	32.891	26.494	1438.2
14.0	14.66	-1.803	26.045	32.889	26.492	1438.2
15.0	15.62	-1.803	26.049	32.893	26.496	1438.2
16.0	16.66	-1.801	26.052	32.896	26.498	1438.2
17.0	17.68	-1.801	26.053	32.897	26.498	1438.2
18.0	18.67	-1.800	26.054	32.897	26.499	1438.3
19.0	19.70	-1.800	26.057	32.899	26.500	1438.3
20.0	20.72	-1.800	26.058	32.900	26.501	1438.3
21.0	21.72	-1.800	26.069	32.915	26.513	1438.3
22.0	22.76	-1.800	26.071	32.917	26.515	1438.4
23.0	23.73	-1.800	26.073	32.919	26.516	1438.4
24.0	24.76	-1.799	26.074	32.920	26.518	1438.4
25.0	25.79	-1.799	26.077	32.923	26.520	1438.4
26.0	26.78	-1.800	26.086	32.936	26.530	1438.4
27.0	27.83	-1.800	26.089	32.940	26.533	1438.5
28.0	28.81	-1.801	26.091	32.943	26.536	1438.5
29.0	29.83	-1.802	26.094	32.947	26.539	1438.5
30.0	30.89	-1.800	26.098	32.950	26.542	1438.5
31.0	31.86	-1.800	26.100	32.952	26.544	1438.6
32.0	32.90	-1.799	26.103	32.956	26.546	1438.6
33.0	33.90	-1.800	26.107	32.960	26.550	1438.6
34.0	34.90	-1.799	26.112	32.966	26.555	1438.6
35.0	35.90	-1.800	26.113	32.968	26.556	1438.6
36.0	36.96	-1.800	26.115	32.970	26.558	1438.7
37.0	37.99	-1.799	26.123	32.979	26.566	1438.7
38.0	38.96	-1.799	26.125	32.981	26.567	1438.7
39.0	39.99	-1.798	26.118	32.971	26.559	1438.7
40.0	41.01	-1.798	26.128	32.983	26.569	1438.8
41.0	42.01	-1.798	26.129	32.983	26.569	1438.8
42.0	43.01	-1.798	26.130	32.985	26.570	1438.8
43.0	44.07	-1.798	26.131	32.986	26.571	1438.8
44.0	45.09	-1.799	26.132	32.988	26.572	1438.8
45.0	46.06	-1.799	26.133	32.989	26.573	1438.8
46.0	47.09	-1.799	26.135	32.990	26.574	1438.9
47.0	48.12	-1.799	26.135	32.991	26.575	1438.9
48.0	49.12	-1.799	26.137	32.992	26.576	1438.9
49.0	50.13	-1.799	26.138	32.994	26.577	1438.9
50.0	51.19	-1.798	26.140	32.994	26.578	1438.9
51.0	52.18	-1.795	26.146	32.998	26.581	1439.0
52.0	53.16	-1.795	26.150	33.002	26.584	1439.0
53.0	54.22	-1.794	26.153	33.005	26.587	1439.0
54.0	55.23	-1.792	26.157	33.009	26.589	1439.1
55.0	56.21	-1.790	26.160	33.011	26.591	1439.1
56.0	57.25	-1.789	26.164	33.013	26.593	1439.1
57.0	58.26	-1.787	26.167	33.016	26.595	1439.1
58.0	59.27	-1.787	26.169	33.017	26.596	1439.2
59.0	60.29	-1.787	26.170	33.017	26.596	1439.2
60.0	61.35	-1.786	26.171	33.018	26.596	1439.2
61.0	62.31	-1.786	26.172	33.019	26.597	1439.2
62.0	63.37	-1.786	26.174	33.020	26.598	1439.2
63.0	64.39	-1.785	26.176	33.022	26.600	1439.3

EXPERIMENT 3023

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.38	-1.784	26.179	33.024	26.602	1439.3
65.0	66.41	-1.783	26.181	33.026	26.603	1439.3
66.0	67.44	-1.783	26.183	33.027	26.604	1439.3
67.0	68.39	-1.782	26.184	33.028	26.605	1439.3
68.0	69.42	-1.782	26.185	33.029	26.605	1439.4
69.0	70.46	-1.782	26.186	33.029	26.606	1439.4
70.0	71.41	-1.782	26.187	33.030	26.606	1439.4
71.0	72.50	-1.782	26.188	33.030	26.607	1439.4
72.0	73.45	-1.782	26.188	33.030	26.606	1439.4
73.0	74.48	-1.782	26.189	33.030	26.607	1439.4
74.0	75.54	-1.782	26.190	33.031	26.607	1439.5
75.0	76.49	-1.782	26.190	33.031	26.607	1439.5
76.0	77.56	-1.782	26.191	33.032	26.607	1439.5
77.0	78.53	-1.781	26.192	33.032	26.608	1439.5
78.0	79.57	-1.781	26.193	33.032	26.608	1439.5
79.0	80.62	-1.781	26.194	33.034	26.609	1439.6
80.0	81.59	-1.780	26.197	33.036	26.611	1439.6
81.0	82.63	-1.781	26.198	33.037	26.612	1439.6
82.0	83.63	-1.781	26.199	33.037	26.612	1439.6
83.0	84.64	-1.780	26.200	33.038	26.613	1439.6
84.0	85.65	-1.778	26.203	33.040	26.614	1439.7
85.0	86.65	-1.778	26.204	33.040	26.615	1439.7
86.0	87.71	-1.778	26.206	33.042	26.616	1439.7
87.0	88.70	-1.778	26.207	33.044	26.617	1439.7
88.0	89.73	-1.778	26.209	33.045	26.618	1439.7
89.0	90.75	-1.778	26.209	33.044	26.618	1439.8
90.0	91.73	-1.778	26.210	33.045	26.618	1439.8
91.0	92.79	-1.778	26.211	33.046	26.619	1439.8
92.0	93.76	-1.778	26.212	33.046	26.619	1439.8
93.0	94.80	-1.778	26.211	33.044	26.618	1439.8
94.0	95.80	-1.777	26.212	33.045	26.619	1439.8
95.0	96.82	-1.778	26.213	33.046	26.619	1439.9
96.0	97.85	-1.778	26.214	33.047	26.620	1439.9
97.0	98.84	-1.777	26.215	33.047	26.620	1439.9
98.0	99.87	-1.777	26.215	33.047	26.620	1439.9
99.0	100.85	-1.777	26.216	33.047	26.620	1439.9
100.0	101.91	-1.777	26.218	33.049	26.621	1439.9
101.0	102.90	-1.776	26.219	33.049	26.621	1440.0
102.0	103.91	-1.776	26.219	33.048	26.620	1440.0
103.0	104.95	-1.775	26.220	33.048	26.621	1440.0
104.0	105.96	-1.776	26.221	33.050	26.622	1440.0
105.0	106.93	-1.775	26.223	33.050	26.622	1440.0
106.0	108.01	-1.775	26.224	33.051	26.623	1440.1
107.0	109.01	-1.773	26.226	33.052	26.624	1440.1
108.0	109.99	-1.771	26.229	33.053	26.625	1440.1
109.0	111.06	-1.770	26.231	33.054	26.626	1440.1
110.0	112.06	-1.770	26.233	33.056	26.627	1440.2
111.0	113.04	-1.770	26.234	33.057	26.628	1440.2
112.0	114.10	-1.770	26.235	33.057	26.628	1440.2
113.0	115.08	-1.769	26.236	33.057	26.628	1440.2
114.0	116.08	-1.769	26.236	33.057	26.628	1440.2
115.0	117.15	-1.768	26.239	33.060	26.630	1440.3
116.0	118.15	-1.768	26.240	33.061	26.631	1440.3
117.0	119.11	-1.768	26.240	33.060	26.630	1440.3
118.0	120.21	-1.768	26.241	33.060	26.630	1440.3
119.0	121.16	-1.768	26.242	33.060	26.630	1440.3
120.0	122.19	-1.767	26.243	33.061	26.631	1440.3
121.0	123.24	-1.768	26.243	33.060	26.630	1440.4
122.0	124.21	-1.767	26.244	33.061	26.631	1440.4
123.0	125.23	-1.767	26.245	33.061	26.631	1440.4
124.0	126.29	-1.767	26.245	33.061	26.631	1440.4
125.0	127.25	-1.767	26.246	33.063	26.632	1440.4
126.0	128.30	-1.767	26.247	33.062	26.632	1440.4
127.0	129.30	-1.766	26.247	33.062	26.632	1440.5
128.0	130.30	-1.766	26.249	33.063	26.633	1440.5
129.0	131.34	-1.766	26.250	33.063	26.633	1440.5
130.0	132.34	-1.764	26.252	33.064	26.634	1440.5

EXPERIMENT 3023

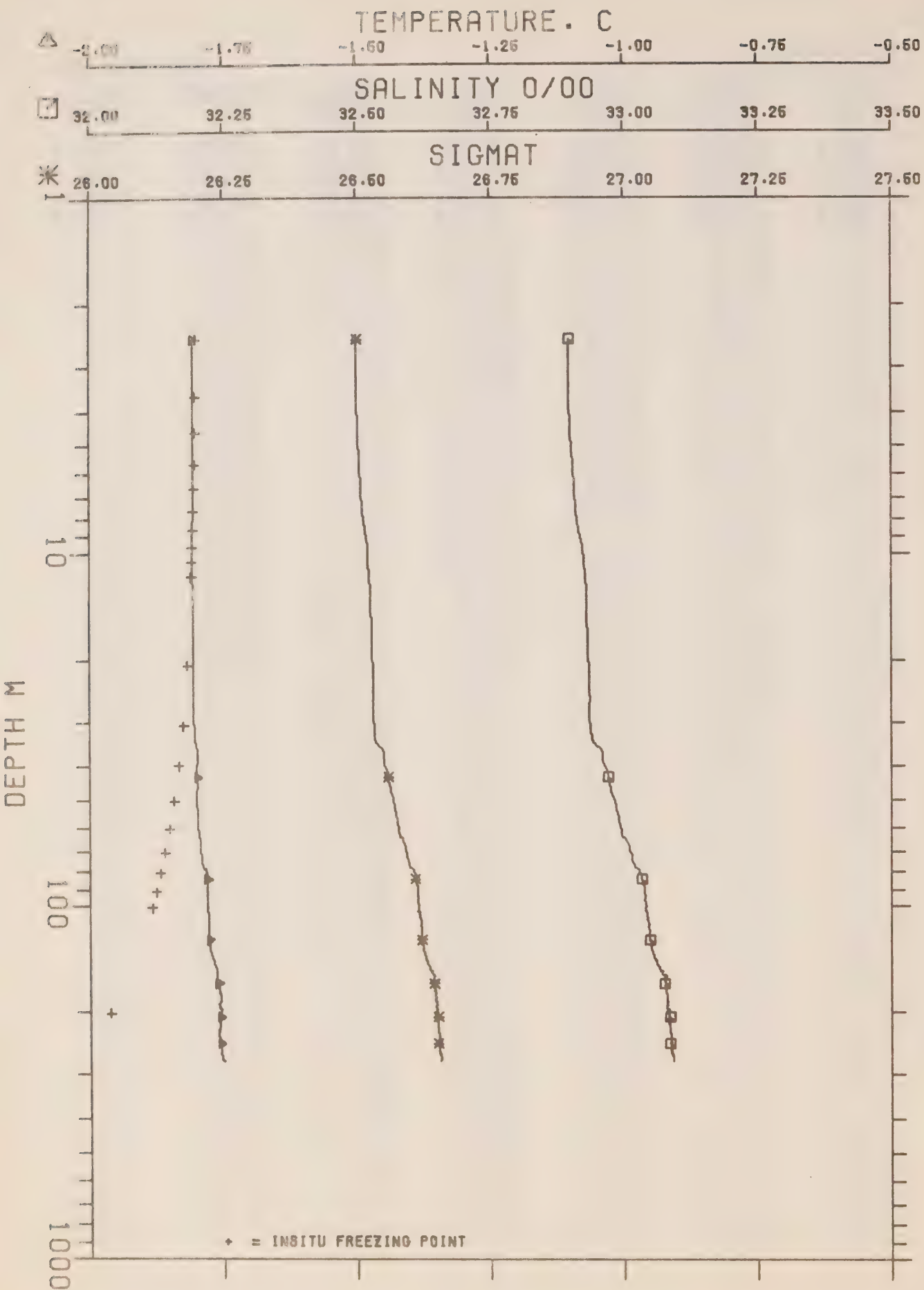
DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	133.34	-1.764	26.254	33.066	26.635	1440.5
132.0	134.38	-1.763	26.256	33.067	26.636	1440.6
133.0	135.37	-1.763	26.257	33.068	26.637	1440.6
134.0	136.40	-1.763	26.257	33.068	26.637	1440.6
135.0	137.39	-1.762	26.259	33.069	26.638	1440.6
136.0	138.39	-1.762	26.261	33.071	26.639	1440.6
137.0	139.46	-1.762	26.262	33.072	26.640	1440.7
138.0	140.41	-1.762	26.263	33.072	26.640	1440.7
139.0	141.47	-1.760	26.266	33.073	26.641	1440.7
140.0	142.48	-1.760	26.267	33.074	26.641	1440.7
141.0	143.44	-1.760	26.267	33.073	26.641	1440.7
142.0	144.52	-1.760	26.268	33.074	26.641	1440.8
143.0	145.48	-1.760	26.268	33.074	26.641	1440.8
144.0	146.55	-1.759	26.269	33.074	26.642	1440.8
145.0	147.54	-1.758	26.271	33.075	26.642	1440.8
146.0	148.51	-1.758	26.272	33.076	26.643	1440.8
147.0	149.57	-1.758	26.274	33.077	26.643	1440.9
148.0	150.55	-1.757	26.275	33.077	26.644	1440.9
149.0	151.61	-1.757	26.275	33.077	26.644	1440.9
150.0	152.58	-1.757	26.276	33.078	26.644	1440.9
151.0	153.63	-1.757	26.277	33.078	26.645	1440.9
152.0	154.64	-1.756	26.279	33.079	26.646	1441.0
153.0	155.66	-1.756	26.279	33.080	26.646	1441.0
154.0	156.70	-1.756	26.280	33.079	26.645	1441.0
155.0	157.65	-1.756	26.280	33.080	26.646	1441.0
156.0	158.74	-1.756	26.280	33.079	26.645	1441.0
157.0	159.67	-1.757	26.282	33.081	26.647	1441.0
158.0	160.74	-1.757	26.282	33.081	26.647	1441.1
159.0	161.73	-1.757	26.283	33.081	26.647	1441.1
160.0	162.79	-1.757	26.284	33.082	26.648	1441.1
161.0	163.77	-1.757	26.285	33.083	26.649	1441.1
162.0	164.82	-1.756	26.285	33.083	26.648	1441.1
163.0	165.81	-1.756	26.286	33.082	26.648	1441.1
164.0	166.82	-1.757	26.286	33.083	26.649	1441.2
165.0	167.83	-1.757	26.286	33.082	26.648	1441.2
166.0	168.87	-1.757	26.286	33.082	26.648	1441.2
167.0	169.86	-1.757	26.286	33.082	26.648	1441.2
168.0	170.90	-1.757	26.287	33.082	26.648	1441.2
169.0	171.88	-1.757	26.288	33.082	26.648	1441.2
170.0	172.89	-1.757	26.288	33.082	26.648	1441.3
171.0	173.96	-1.757	26.288	33.082	26.648	1441.3
172.0	174.92	-1.756	26.289	33.082	26.648	1441.3
173.0	175.96	-1.756	26.290	33.082	26.648	1441.3
174.0	176.99	-1.756	26.290	33.082	26.648	1441.3
175.0	177.98	-1.756	26.291	33.082	26.648	1441.3
176.0	179.02	-1.756	26.291	33.082	26.648	1441.4
177.0	180.01	-1.756	26.292	33.082	26.648	1441.4
178.0	181.04	-1.756	26.292	33.082	26.648	1441.4
179.0	182.05	-1.756	26.293	33.082	26.648	1441.4
180.0	183.05	-1.757	26.293	33.082	26.648	1441.4
181.0	184.10	-1.757	26.293	33.082	26.648	1441.4
182.0	185.07	-1.757	26.293	33.082	26.648	1441.5
183.0	186.10	-1.757	26.294	33.082	26.648	1441.5
184.0	187.14	-1.757	26.294	33.082	26.648	1441.5
185.0	188.14	-1.757	26.295	33.083	26.648	1441.5
186.0	189.17	-1.757	26.295	33.083	26.648	1441.5
187.0	190.18	-1.757	26.296	33.082	26.648	1441.5
188.0	191.17	-1.757	26.296	33.083	26.648	1441.6
189.0	192.24	-1.757	26.297	33.083	26.648	1441.6
190.0	193.20	-1.757	26.297	33.082	26.648	1441.6
191.0	194.24	-1.757	26.298	33.083	26.649	1441.6
192.0	195.25	-1.757	26.298	33.083	26.649	1441.6
193.0	196.26	-1.757	26.298	33.083	26.649	1441.6
194.0	197.29	-1.757	26.299	33.083	26.648	1441.7
195.0	198.28	-1.757	26.300	33.083	26.649	1441.7
196.0	199.32	-1.756	26.300	33.083	26.648	1441.7
197.0	200.29	-1.757	26.300	33.083	26.648	1441.7

EXPERIMENT 3023

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.34	-1.756	26.301	33.083	26.648	1441.7
199.0	202.36	-1.756	26.302	33.083	26.648	1441.7
200.0	203.37	-1.757	26.302	33.083	26.649	1441.8
201.0	204.42	-1.758	26.302	33.083	26.649	1441.8
202.0	205.39	-1.759	26.301	33.083	26.649	1441.8
203.0	206.45	-1.760	26.301	33.083	26.649	1441.8
204.0	207.42	-1.760	26.301	33.084	26.649	1441.8
205.0	208.46	-1.759	26.303	33.083	26.649	1441.8
206.0	209.45	-1.759	26.303	33.083	26.649	1441.8
207.0	210.48	-1.761	26.302	33.083	26.649	1441.9
208.0	211.49	-1.761	26.302	33.083	26.649	1441.9
209.0	212.49	-1.759	26.304	33.083	26.649	1441.9
210.0	213.53	-1.760	26.304	33.084	26.649	1441.9
211.0	214.50	-1.759	26.306	33.084	26.649	1441.9
212.0	215.57	-1.759	26.306	33.084	26.649	1441.9
213.0	216.54	-1.757	26.307	33.083	26.649	1442.0
214.0	217.60	-1.757	26.309	33.084	26.649	1442.0
215.0	218.59	-1.757	26.308	33.083	26.649	1442.0
216.0	219.63	-1.757	26.309	33.084	26.649	1442.0
217.0	220.60	-1.757	26.309	33.083	26.649	1442.0
218.0	221.65	-1.757	26.310	33.083	26.649	1442.1
219.0	222.65	-1.756	26.311	33.083	26.649	1442.1
220.0	223.67	-1.757	26.311	33.083	26.649	1442.1
221.0	224.68	-1.757	26.312	33.084	26.649	1442.1
222.0	225.69	-1.756	26.312	33.084	26.649	1442.1
223.0	226.74	-1.756	26.314	33.084	26.650	1442.1
224.0	227.73	-1.756	26.314	33.084	26.649	1442.2
225.0	228.76	-1.753	26.316	33.085	26.650	1442.2
226.0	229.74	-1.753	26.317	33.084	26.649	1442.2
227.0	230.80	-1.755	26.316	33.084	26.650	1442.2
228.0	231.77	-1.754	26.317	33.084	26.650	1442.2
229.0	232.82	-1.754	26.317	33.084	26.649	1442.3
230.0	233.82	-1.755	26.317	33.084	26.650	1442.3
231.0	234.80	-1.755	26.318	33.084	26.650	1442.3
232.0	235.85	-1.754	26.319	33.084	26.650	1442.3
233.0	236.82	-1.755	26.318	33.084	26.649	1442.3
234.0	237.91	-1.752	26.323	33.086	26.651	1442.3
235.0	238.86	-1.754	26.322	33.086	26.651	1442.4
236.0	239.92	-1.755	26.321	33.086	26.651	1442.4
237.0	240.94	-1.755	26.321	33.087	26.651	1442.4
238.0	241.90	-1.756	26.322	33.086	26.651	1442.4
239.0	242.92	-1.757	26.322	33.087	26.652	1442.4
240.0	243.95	-1.756	26.323	33.088	26.653	1442.4
241.0	244.98	-1.755	26.325	33.088	26.653	1442.5
242.0	245.97	-1.755	26.325	33.088	26.653	1442.5
243.0	246.97	-1.754	26.327	33.090	26.654	1442.5
244.0	247.98	-1.753	26.329	33.090	26.654	1442.5
245.0	249.02	-1.751	26.332	33.092	26.655	1442.5
246.0	250.03	-1.751	26.333	33.091	26.655	1442.6
247.0	251.07	-1.751	26.333	33.092	26.656	1442.6
248.0	252.08	-1.751	26.333	33.091	26.655	1442.6
249.0	253.07	-1.751	26.334	33.091	26.655	1442.6
250.0	254.05	-1.751	26.334	33.092	26.656	1442.6
251.0	255.09	-1.750	26.336	33.092	26.656	1442.6
252.0	256.10	-1.751	26.336	33.093	26.657	1442.7
253.0	257.13	-1.751	26.335	33.091	26.655	1442.7
254.0	258.18	-1.752	26.336	33.092	26.656	1442.7
255.0	259.19	-1.752	26.336	33.092	26.656	1442.7
256.0	260.20	-1.752	26.336	33.092	26.656	1442.7
257.0	261.16	-1.753	26.336	33.091	26.655	1442.7
258.0	262.15	-1.753	26.336	33.091	26.655	1442.7
259.0	263.19	-1.753	26.337	33.092	26.656	1442.8
260.0	264.23	-1.752	26.338	33.092	26.656	1442.8
261.0	265.26	-1.754	26.338	33.093	26.656	1442.8
262.0	266.29	-1.753	26.337	33.090	26.655	1442.8
263.0	267.31	-1.753	26.338	33.091	26.655	1442.8
264.0	268.32	-1.753	26.339	33.091	26.655	1442.9

EXPERIMENT 3023

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.32	-1.753	26.341	33.094	26.658	1442.9
266.0	270.30	-1.752	26.342	33.093	26.657	1442.9
267.0	271.31	-1.750	26.343	33.093	26.657	1442.9
268.0	272.34	-1.749	26.346	33.094	26.657	1442.9
269.0	273.30	-1.745	26.349	33.094	26.657	1443.0



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3024
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0520
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.51	-1.806	26.044	32.898	26.500	1438.0
3.0	3.64	-1.806	26.045	32.898	26.500	1438.0
4.0	4.60	-1.806	26.046	32.900	26.501	1438.0
5.0	5.66	-1.806	26.050	32.905	26.505	1438.0
6.0	6.62	-1.806	26.052	32.907	26.507	1438.0
7.0	7.66	-1.806	26.055	32.911	26.510	1438.1
8.0	8.66	-1.806	26.059	32.916	26.514	1438.1
9.0	9.70	-1.806	26.064	32.922	26.519	1438.1
10.0	10.66	-1.807	26.066	32.924	26.521	1438.1
11.0	11.75	-1.807	26.068	32.927	26.523	1438.2
12.0	12.72	-1.806	26.070	32.929	26.525	1438.2
13.0	13.76	-1.806	26.072	32.930	26.526	1438.2
14.0	14.73	-1.806	26.073	32.931	26.526	1438.2
15.0	15.80	-1.806	26.074	32.931	26.526	1438.2
16.0	16.76	-1.806	26.074	32.931	26.527	1438.2
17.0	17.82	-1.805	26.075	32.932	26.527	1438.3
18.0	18.78	-1.805	26.077	32.933	26.528	1438.3
19.0	19.83	-1.805	26.077	32.933	26.528	1438.3
20.0	20.81	-1.804	26.079	32.934	26.529	1438.3
21.0	21.87	-1.804	26.080	32.935	26.529	1438.3
22.0	22.83	-1.804	26.080	32.935	26.530	1438.4
23.0	23.87	-1.804	26.081	32.935	26.530	1438.4
24.0	24.87	-1.804	26.082	32.935	26.530	1438.4
25.0	25.85	-1.805	26.083	32.937	26.531	1438.4
26.0	26.93	-1.805	26.083	32.936	26.531	1438.4
27.0	27.86	-1.805	26.083	32.936	26.530	1438.4
28.0	28.92	-1.805	26.084	32.936	26.531	1438.5
29.0	29.93	-1.804	26.084	32.936	26.530	1438.5
30.0	30.90	-1.803	26.087	32.939	26.533	1438.5
31.0	31.98	-1.804	26.087	32.938	26.532	1438.5
32.0	32.96	-1.803	26.089	32.939	26.533	1438.5
33.0	33.94	-1.803	26.090	32.940	26.534	1438.6
34.0	34.97	-1.800	26.097	32.947	26.539	1438.6
35.0	35.96	-1.798	26.107	32.958	26.548	1438.6
36.0	36.97	-1.798	26.109	32.960	26.550	1438.7
37.0	37.98	-1.798	26.109	32.959	26.549	1438.7
38.0	39.00	-1.799	26.109	32.959	26.549	1438.7
39.0	40.02	-1.799	26.111	32.962	26.551	1438.7
40.0	41.01	-1.799	26.116	32.967	26.556	1438.7
41.0	42.01	-1.799	26.118	32.970	26.558	1438.7
42.0	43.04	-1.799	26.118	32.970	26.558	1438.8
43.0	44.08	-1.799	26.119	32.970	26.558	1438.8
44.0	45.07	-1.798	26.122	32.973	26.560	1438.8
45.0	46.14	-1.799	26.124	32.975	26.562	1438.8
46.0	47.17	-1.799	26.124	32.976	26.563	1438.8
47.0	48.18	-1.800	26.126	32.978	26.564	1438.9
48.0	49.21	-1.800	26.128	32.981	26.567	1438.9
49.0	50.21	-1.799	26.130	32.983	26.568	1438.9
50.0	51.20	-1.799	26.132	32.984	26.569	1438.9
51.0	52.22	-1.799	26.133	32.985	26.570	1438.9
52.0	53.22	-1.799	26.134	32.986	26.571	1439.0
53.0	54.26	-1.798	26.136	32.987	26.571	1439.0
54.0	55.26	-1.798	26.138	32.989	26.573	1439.0
55.0	56.25	-1.798	26.140	32.990	26.574	1439.0
56.0	57.28	-1.797	26.141	32.991	26.575	1439.0
57.0	58.29	-1.797	26.142	32.992	26.576	1439.1
58.0	59.29	-1.797	26.144	32.994	26.577	1439.1
59.0	60.33	-1.796	26.145	32.994	26.578	1439.1
60.0	61.33	-1.796	26.147	32.996	26.579	1439.1
61.0	62.37	-1.796	26.148	32.996	26.579	1439.1
62.0	63.39	-1.795	26.149	32.997	26.580	1439.2
63.0	64.44	-1.793	26.155	33.002	26.584	1439.2

EXPERIMENT 3024

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.45	-1.792	26.159	33.005	26.586	1439.2
65.0	66.45	-1.792	26.160	33.007	26.587	1439.2
66.0	67.47	-1.792	26.163	33.010	26.590	1439.3
67.0	68.46	-1.792	26.163	33.009	26.589	1439.3
68.0	69.51	-1.792	26.165	33.011	26.591	1439.3
69.0	70.49	-1.791	26.167	33.013	26.593	1439.3
70.0	71.48	-1.791	26.169	33.014	26.593	1439.3
71.0	72.54	-1.790	26.170	33.014	26.594	1439.4
72.0	73.52	-1.790	26.172	33.016	26.595	1439.4
73.0	74.55	-1.789	26.173	33.016	26.595	1439.4
74.0	75.57	-1.789	26.175	33.018	26.597	1439.4
75.0	76.59	-1.788	26.177	33.019	26.598	1439.4
76.0	77.60	-1.787	26.178	33.020	26.598	1439.4
77.0	78.61	-1.783	26.187	33.027	26.604	1439.5
78.0	79.59	-1.783	26.189	33.028	26.605	1439.5
79.0	80.62	-1.781	26.192	33.030	26.606	1439.6
80.0	81.63	-1.780	26.195	33.033	26.608	1439.6
81.0	82.62	-1.780	26.196	33.033	26.609	1439.6
82.0	83.65	-1.780	26.197	33.034	26.609	1439.6
83.0	84.65	-1.780	26.198	33.034	26.610	1439.6
84.0	85.65	-1.780	26.199	33.035	26.610	1439.6
85.0	86.69	-1.780	26.199	33.036	26.611	1439.7
86.0	87.72	-1.780	26.200	33.037	26.611	1439.7
87.0	88.73	-1.779	26.202	33.038	26.612	1439.7
88.0	89.76	-1.779	26.203	33.038	26.612	1439.7
89.0	90.79	-1.779	26.204	33.038	26.613	1439.7
90.0	91.78	-1.779	26.204	33.038	26.612	1439.8
91.0	92.79	-1.779	26.205	33.039	26.614	1439.8
92.0	93.80	-1.779	26.206	33.039	26.613	1439.8
93.0	94.81	-1.779	26.207	33.040	26.614	1439.8
94.0	95.82	-1.779	26.206	33.039	26.613	1439.8
95.0	96.81	-1.779	26.207	33.039	26.613	1439.8
96.0	97.84	-1.779	26.207	33.039	26.613	1439.9
97.0	98.87	-1.779	26.209	33.040	26.614	1439.9
98.0	99.90	-1.779	26.210	33.041	26.615	1439.9
99.0	100.93	-1.779	26.210	33.041	26.615	1439.9
100.0	101.94	-1.779	26.210	33.041	26.615	1439.9
101.0	102.94	-1.779	26.210	33.039	26.614	1439.9
102.0	103.97	-1.778	26.214	33.043	26.617	1440.0
103.0	104.96	-1.778	26.213	33.042	26.616	1440.0
104.0	106.01	-1.778	26.215	33.044	26.617	1440.0
105.0	107.01	-1.778	26.214	33.042	26.616	1440.0
106.0	108.01	-1.778	26.216	33.044	26.618	1440.0
107.0	109.00	-1.778	26.216	33.043	26.617	1440.0
108.0	110.03	-1.778	26.218	33.046	26.619	1440.1
109.0	111.04	-1.778	26.219	33.046	26.619	1440.1
110.0	112.04	-1.778	26.220	33.047	26.620	1440.1
111.0	113.05	-1.778	26.218	33.044	26.618	1440.1
112.0	114.06	-1.778	26.220	33.046	26.619	1440.1
113.0	115.07	-1.778	26.221	33.046	26.619	1440.2
114.0	116.07	-1.778	26.221	33.047	26.620	1440.2
115.0	117.10	-1.778	26.222	33.047	26.620	1440.2
116.0	118.11	-1.778	26.223	33.047	26.620	1440.2
117.0	119.12	-1.778	26.224	33.048	26.621	1440.2
118.0	120.10	-1.777	26.224	33.047	26.620	1440.2
119.0	121.15	-1.777	26.225	33.047	26.620	1440.3
120.0	122.15	-1.777	26.226	33.049	26.621	1440.3
121.0	123.19	-1.777	26.226	33.048	26.621	1440.3
122.0	124.22	-1.777	26.227	33.048	26.621	1440.3
123.0	125.21	-1.777	26.228	33.049	26.621	1440.3
124.0	126.23	-1.776	26.229	33.049	26.621	1440.3
125.0	127.25	-1.776	26.230	33.049	26.622	1440.4
126.0	128.23	-1.776	26.231	33.050	26.622	1440.4
127.0	129.29	-1.776	26.231	33.050	26.623	1440.4
128.0	130.29	-1.776	26.232	33.050	26.623	1440.4
129.0	131.30	-1.776	26.232	33.050	26.622	1440.4
130.0	132.36	-1.776	26.233	33.050	26.622	1440.5

EXPERIMENT 3024

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	133.33	-1.774	26.236	33.052	26.623	1440.5
132.0	134.38	-1.773	26.237	33.052	26.624	1440.5
133.0	135.39	-1.773	26.238	33.053	26.625	1440.5
134.0	136.37	-1.772	26.240	33.053	26.625	1440.5
135.0	137.39	-1.772	26.241	33.055	26.626	1440.6
136.0	138.44	-1.770	26.243	33.055	26.627	1440.6
137.0	139.43	-1.770	26.244	33.055	26.626	1440.6
138.0	140.49	-1.769	26.246	33.056	26.627	1440.6
139.0	141.49	-1.768	26.248	33.058	26.629	1440.6
140.0	142.51	-1.767	26.251	33.060	26.630	1440.7
141.0	143.49	-1.767	26.252	33.060	26.631	1440.7
142.0	144.51	-1.767	26.252	33.060	26.631	1440.7
143.0	145.49	-1.767	26.253	33.061	26.631	1440.7
144.0	146.54	-1.766	26.256	33.063	26.633	1440.7
145.0	147.54	-1.766	26.256	33.063	26.632	1440.8
146.0	148.58	-1.765	26.259	33.066	26.635	1440.8
147.0	149.58	-1.764	26.261	33.065	26.635	1440.8
148.0	150.62	-1.763	26.263	33.067	26.636	1440.8
149.0	151.62	-1.762	26.265	33.068	26.637	1440.9
150.0	152.66	-1.762	26.268	33.071	26.639	1440.9
151.0	153.65	-1.762	26.268	33.070	26.639	1440.9
152.0	154.64	-1.761	26.268	33.071	26.639	1440.9
153.0	155.65	-1.761	26.270	33.072	26.640	1440.9
154.0	156.63	-1.761	26.273	33.077	26.644	1441.0
155.0	157.67	-1.761	26.276	33.079	26.645	1441.0
156.0	158.69	-1.762	26.273	33.075	26.643	1441.0
157.0	159.73	-1.761	26.274	33.076	26.643	1441.0
158.0	160.80	-1.761	26.275	33.076	26.643	1441.0
159.0	161.83	-1.761	26.275	33.076	26.643	1441.0
160.0	162.80	-1.761	26.276	33.076	26.643	1441.1
161.0	163.79	-1.761	26.277	33.076	26.643	1441.1
162.0	164.74	-1.760	26.278	33.076	26.643	1441.1
163.0	165.76	-1.760	26.279	33.077	26.644	1441.1
164.0	166.79	-1.760	26.279	33.076	26.643	1441.1
165.0	167.82	-1.760	26.280	33.077	26.644	1441.1
166.0	168.85	-1.760	26.281	33.078	26.644	1441.2
167.0	169.83	-1.759	26.281	33.076	26.643	1441.2
168.0	170.83	-1.758	26.282	33.076	26.643	1441.2
169.0	171.83	-1.759	26.283	33.077	26.644	1441.2
170.0	172.86	-1.758	26.283	33.077	26.644	1441.2
171.0	173.87	-1.758	26.285	33.078	26.645	1441.3
172.0	174.90	-1.757	26.286	33.078	26.645	1441.3
173.0	175.90	-1.757	26.289	33.081	26.647	1441.3
174.0	176.94	-1.756	26.288	33.078	26.645	1441.3
175.0	177.92	-1.756	26.288	33.079	26.645	1441.3
176.0	178.93	-1.756	26.290	33.080	26.646	1441.4
177.0	179.96	-1.756	26.290	33.079	26.645	1441.4
178.0	180.97	-1.756	26.291	33.081	26.647	1441.4
179.0	181.98	-1.756	26.291	33.080	26.646	1441.4
180.0	183.01	-1.756	26.291	33.080	26.646	1441.4
181.0	184.03	-1.756	26.291	33.079	26.646	1441.4
182.0	185.05	-1.756	26.293	33.080	26.646	1441.5
183.0	186.07	-1.757	26.294	33.083	26.648	1441.5
184.0	187.07	-1.757	26.293	33.080	26.646	1441.5
185.0	188.08	-1.758	26.292	33.080	26.646	1441.5
186.0	189.10	-1.759	26.292	33.081	26.647	1441.5
187.0	190.11	-1.759	26.295	33.084	26.649	1441.5
188.0	191.14	-1.759	26.293	33.081	26.647	1441.5
189.0	192.11	-1.757	26.295	33.080	26.646	1441.6
190.0	193.14	-1.756	26.296	33.081	26.647	1441.6
191.0	194.13	-1.756	26.296	33.080	26.646	1441.6
192.0	195.15	-1.755	26.298	33.081	26.647	1441.6
193.0	196.16	-1.753	26.303	33.085	26.650	1441.7
194.0	197.17	-1.754	26.301	33.082	26.648	1441.7
195.0	198.18	-1.754	26.301	33.082	26.648	1441.7
196.0	199.21	-1.754	26.302	33.083	26.648	1441.7
197.0	200.28	-1.754	26.303	33.083	26.649	1441.7

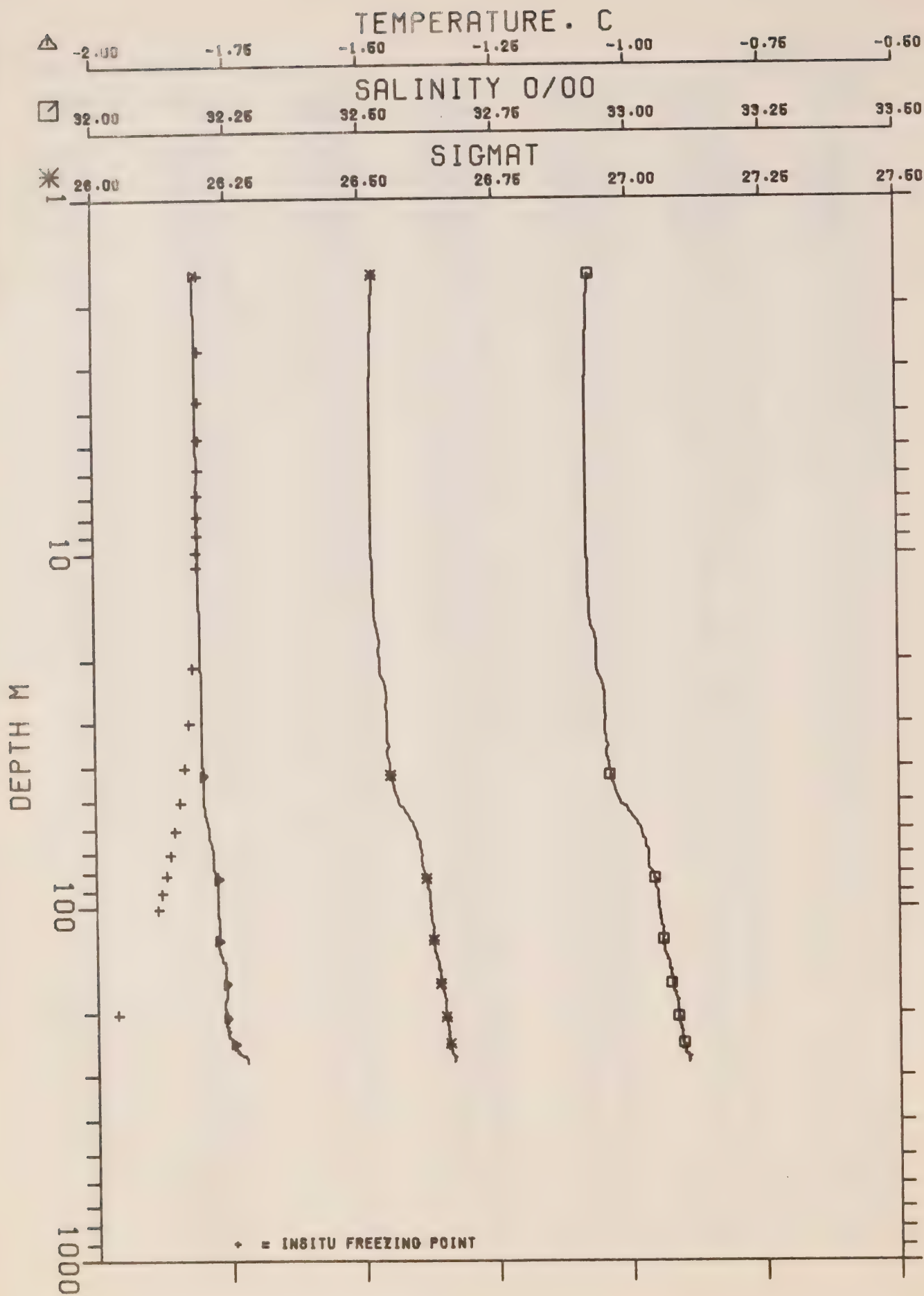
EXPERIMENT 3024

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.28	-1.754	26.304	33.084	26.649	1441.7
199.0	202.30	-1.755	26.303	33.083	26.649	1441.7
200.0	203.31	-1.755	26.303	33.084	26.650	1441.8
201.0	204.30	-1.755	26.303	33.082	26.648	1441.8
202.0	205.29	-1.756	26.303	33.085	26.651	1441.8
203.0	206.31	-1.757	26.303	33.086	26.651	1441.8
204.0	207.33	-1.756	26.303	33.083	26.649	1441.7
205.0	208.37	-1.757	26.304	33.083	26.649	1441.8
206.0	209.39	-1.757	26.305	33.086	26.651	1441.9
207.0	210.39	-1.757	26.307	33.086	26.651	1441.9
208.0	211.40	-1.757	26.306	33.083	26.649	1441.9
209.0	212.36	-1.757	26.306	33.084	26.649	1441.9
210.0	213.40	-1.757	26.307	33.084	26.649	1441.9
211.0	214.44	-1.757	26.307	33.084	26.649	1441.9
212.0	215.46	-1.757	26.309	33.086	26.651	1442.0
213.0	216.48	-1.757	26.308	33.085	26.650	1442.0
214.0	217.46	-1.757	26.309	33.085	26.650	1442.0
215.0	218.45	-1.757	26.309	33.084	26.650	1442.0
216.0	219.50	-1.757	26.309	33.084	26.650	1442.0
217.0	220.52	-1.757	26.310	33.085	26.650	1442.0
218.0	221.52	-1.758	26.310	33.085	26.650	1442.0
219.0	222.51	-1.759	26.310	33.085	26.651	1442.1
220.0	223.52	-1.759	26.310	33.085	26.650	1442.1
221.0	224.57	-1.759	26.311	33.086	26.651	1442.1
222.0	225.58	-1.759	26.312	33.085	26.651	1442.1
223.0	226.58	-1.760	26.311	33.085	26.651	1442.1
224.0	227.56	-1.761	26.311	33.086	26.651	1442.1
225.0	228.60	-1.761	26.313	33.088	26.653	1442.2
226.0	229.60	-1.760	26.314	33.088	26.653	1442.2
227.0	230.67	-1.760	26.314	33.087	26.652	1442.2
228.0	231.65	-1.759	26.316	33.089	26.653	1442.2
229.0	232.67	-1.759	26.316	33.087	26.652	1442.2
230.0	233.67	-1.757	26.318	33.088	26.653	1442.3
231.0	234.71	-1.757	26.319	33.088	26.653	1442.3
232.0	235.72	-1.757	26.319	33.088	26.653	1442.3
233.0	236.73	-1.757	26.321	33.091	26.655	1442.3
234.0	237.67	-1.757	26.320	33.088	26.653	1442.3
235.0	238.73	-1.756	26.321	33.087	26.652	1442.3
236.0	239.77	-1.755	26.322	33.087	26.652	1442.4
237.0	240.79	-1.756	26.322	33.087	26.652	1442.4
238.0	241.77	-1.756	26.324	33.090	26.654	1442.4
239.0	242.76	-1.756	26.322	33.087	26.652	1442.4
240.0	243.80	-1.756	26.323	33.087	26.652	1442.4
241.0	244.77	-1.755	26.326	33.090	26.654	1442.5
242.0	245.79	-1.756	26.324	33.088	26.652	1442.5
243.0	246.82	-1.755	26.325	33.088	26.653	1442.5
244.0	247.83	-1.755	26.325	33.088	26.653	1442.5
245.0	248.84	-1.756	26.326	33.088	26.653	1442.5
246.0	249.87	-1.755	26.326	33.088	26.653	1442.5
247.0	250.85	-1.755	26.329	33.091	26.655	1442.6
248.0	251.88	-1.755	26.327	33.088	26.653	1442.6
249.0	252.86	-1.755	26.328	33.089	26.653	1442.6
250.0	253.86	-1.755	26.328	33.088	26.653	1442.6
251.0	254.89	-1.756	26.328	33.089	26.653	1442.6
252.0	255.92	-1.755	26.330	33.089	26.654	1442.6
253.0	256.96	-1.756	26.329	33.088	26.653	1442.6
254.0	257.97	-1.755	26.331	33.090	26.654	1442.7
255.0	258.95	-1.755	26.332	33.090	26.654	1442.7
256.0	259.95	-1.755	26.331	33.088	26.653	1442.7
257.0	260.96	-1.755	26.333	33.090	26.655	1442.7
258.0	261.96	-1.754	26.334	33.090	26.654	1442.7
259.0	263.03	-1.755	26.336	33.092	26.656	1442.8
260.0	264.03	-1.753	26.336	33.091	26.655	1442.8
261.0	265.03	-1.753	26.338	33.092	26.656	1442.8
262.0	266.02	-1.753	26.339	33.093	26.656	1442.8
263.0	267.03	-1.752	26.340	33.093	26.656	1442.8
264.0	268.08	-1.752	26.341	33.093	26.657	1442.9

EXPERIMENT 3024

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.12	-1.752	26.340	33.092	26.656	1442.9
266.0	270.12	-1.752	26.340	33.092	26.656	1442.9
267.0	271.09	-1.752	26.342	33.093	26.657	1442.9
268.0	272.09	-1.750	26.344	33.093	26.657	1442.9
269.0	273.08	-1.749	26.344	33.092	26.656	1442.9
270.0	273.89	-1.747	26.346	33.091	26.655	1443.0

EXPERIMENT 3025



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3025
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0623
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
1.0	1.64	-1.810	26.062	32.928	26.524	1438.0
2.0	2.69	-1.808	26.060	32.922	26.519	1438.0
3.0	3.74	-1.808	26.059	32.921	26.518	1438.0
4.0	4.78	-1.807	26.060	32.921	26.518	1438.0
5.0	5.80	-1.806	26.061	32.920	26.518	1438.1
6.0	6.85	-1.806	26.062	32.921	26.518	1438.1
7.0	7.87	-1.807	26.062	32.921	26.518	1438.1
8.0	8.85	-1.806	26.062	32.920	26.518	1438.1
9.0	9.90	-1.805	26.064	32.920	26.518	1438.1
10.0	10.91	-1.804	26.066	32.922	26.519	1438.1
11.0	11.87	-1.804	26.067	32.922	26.519	1438.2
12.0	12.92	-1.804	26.068	32.923	26.520	1438.2
13.0	13.95	-1.804	26.070	32.925	26.521	1438.2
14.0	14.94	-1.803	26.072	32.926	26.522	1438.2
15.0	15.94	-1.803	26.074	32.928	26.524	1438.2
16.0	16.94	-1.802	26.079	32.934	26.529	1438.3
17.0	17.94	-1.801	26.083	32.938	26.532	1438.3
18.0	18.96	-1.802	26.082	32.937	26.531	1438.3
19.0	19.97	-1.802	26.083	32.938	26.532	1438.3
20.0	20.98	-1.801	26.084	32.938	26.532	1438.3
21.0	21.97	-1.801	26.086	32.940	26.533	1438.4
22.0	22.99	-1.800	26.093	32.948	26.540	1438.4
23.0	24.03	-1.800	26.096	32.951	26.543	1438.4
24.0	25.04	-1.800	26.098	32.953	26.544	1438.4
25.0	26.01	-1.800	26.098	32.953	26.544	1438.5
26.0	27.04	-1.800	26.098	32.952	26.544	1438.5
27.0	28.09	-1.800	26.099	32.953	26.544	1438.5
28.0	29.07	-1.800	26.101	32.954	26.545	1438.5
29.0	30.07	-1.800	26.101	32.954	26.545	1438.5
30.0	31.14	-1.800	26.101	32.953	26.544	1438.5
31.0	32.16	-1.800	26.101	32.953	26.544	1438.6
32.0	33.11	-1.800	26.103	32.955	26.545	1438.6
33.0	34.14	-1.800	26.102	32.954	26.545	1438.6
34.0	35.16	-1.799	26.107	32.959	26.549	1438.6
35.0	36.15	-1.799	26.104	32.954	26.545	1438.6
36.0	37.20	-1.799	26.105	32.955	26.546	1438.6
37.0	38.20	-1.799	26.106	32.957	26.547	1438.7
38.0	39.19	-1.799	26.109	32.959	26.549	1438.7
39.0	40.23	-1.799	26.110	32.960	26.549	1438.7
40.0	41.24	-1.798	26.112	32.962	26.551	1438.7
41.0	42.23	-1.798	26.113	32.961	26.551	1438.7
42.0	43.25	-1.798	26.114	32.962	26.551	1438.8
43.0	44.30	-1.798	26.116	32.965	26.554	1438.8
44.0	45.27	-1.798	26.120	32.970	26.558	1438.8
45.0	46.31	-1.797	26.121	32.971	26.558	1438.8
46.0	47.35	-1.797	26.123	32.972	26.560	1438.8
47.0	48.34	-1.797	26.126	32.976	26.563	1438.9
48.0	49.32	-1.797	26.128	32.978	26.564	1438.9
49.0	50.36	-1.797	26.130	32.980	26.566	1438.9
50.0	51.39	-1.797	26.133	32.983	26.569	1438.9
51.0	52.38	-1.796	26.141	32.992	26.576	1439.0
52.0	53.37	-1.795	26.144	32.995	26.578	1439.0
53.0	54.41	-1.794	26.148	32.999	26.581	1439.0
54.0	55.44	-1.793	26.152	33.003	26.585	1439.0
55.0	56.43	-1.792	26.157	33.008	26.589	1439.1
56.0	57.42	-1.790	26.161	33.011	26.591	1439.1
57.0	58.45	-1.790	26.162	33.012	26.592	1439.1
58.0	59.49	-1.789	26.168	33.017	26.596	1439.2
59.0	60.51	-1.787	26.171	33.020	26.598	1439.2
60.0	61.49	-1.787	26.173	33.021	26.599	1439.2
61.0	62.47	-1.786	26.174	33.022	26.600	1439.2
62.0	63.54	-1.786	26.175	33.023	26.601	1439.2

EXPERIMENT 3025

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
63.0	64.56	-1.785	26.180	33.027	26.604	1439.3
64.0	65.55	-1.784	26.182	33.028	26.604	1439.3
65.0	66.56	-1.783	26.183	33.028	26.604	1439.3
66.0	67.58	-1.783	26.184	33.028	26.605	1439.3
67.0	68.63	-1.781	26.188	33.031	26.607	1439.4
68.0	69.60	-1.780	26.189	33.032	26.607	1439.4
69.0	70.60	-1.780	26.191	33.033	26.609	1439.4
70.0	71.59	-1.780	26.190	33.032	26.608	1439.4
71.0	72.61	-1.780	26.191	33.032	26.608	1439.4
72.0	73.64	-1.780	26.192	33.032	26.608	1439.4
73.0	74.68	-1.780	26.193	33.034	26.609	1439.5
74.0	75.67	-1.779	26.193	33.033	26.609	1439.5
75.0	76.67	-1.779	26.194	33.033	26.609	1439.5
76.0	77.67	-1.779	26.195	33.034	26.609	1439.5
77.0	78.68	-1.777	26.199	33.036	26.611	1439.5
78.0	79.74	-1.773	26.205	33.039	26.613	1439.6
79.0	80.75	-1.773	26.207	33.042	26.616	1439.6
80.0	81.74	-1.772	26.209	33.044	26.617	1439.6
81.0	82.75	-1.772	26.209	33.043	26.617	1439.6
82.0	83.71	-1.772	26.210	33.044	26.617	1439.7
83.0	84.75	-1.772	26.213	33.047	26.620	1439.7
84.0	85.76	-1.772	26.212	33.044	26.618	1439.7
85.0	86.79	-1.772	26.213	33.046	26.619	1439.7
86.0	87.79	-1.772	26.213	33.045	26.618	1439.7
87.0	88.81	-1.772	26.215	33.047	26.619	1439.8
88.0	89.82	-1.773	26.216	33.049	26.622	1439.8
89.0	90.86	-1.773	26.217	33.050	26.622	1439.8
90.0	91.84	-1.773	26.217	33.049	26.622	1439.8
91.0	92.86	-1.773	26.218	33.049	26.622	1439.8
92.0	93.89	-1.773	26.218	33.050	26.622	1439.8
93.0	94.90	-1.773	26.219	33.049	26.622	1439.9
94.0	95.93	-1.773	26.220	33.051	26.623	1439.9
95.0	96.92	-1.772	26.222	33.052	26.624	1439.9
96.0	97.94	-1.772	26.220	33.049	26.622	1439.9
97.0	98.95	-1.772	26.223	33.052	26.624	1439.9
98.0	99.95	-1.772	26.222	33.051	26.623	1439.9
99.0	100.95	-1.773	26.223	33.051	26.623	1440.0
100.0	101.99	-1.772	26.225	33.053	26.625	1440.0
101.0	103.00	-1.772	26.225	33.052	26.624	1440.0
102.0	103.99	-1.772	26.225	33.052	26.624	1440.0
103.0	104.99	-1.773	26.225	33.052	26.624	1440.0
104.0	106.00	-1.772	26.227	33.053	26.624	1440.0
105.0	107.01	-1.770	26.229	33.054	26.625	1440.1
106.0	108.01	-1.770	26.229	33.053	26.625	1440.1
107.0	109.06	-1.770	26.230	33.054	26.625	1440.1
108.0	110.10	-1.770	26.230	33.054	26.625	1440.1
109.0	111.11	-1.770	26.232	33.056	26.627	1440.1
110.0	112.13	-1.771	26.232	33.056	26.627	1440.2
111.0	113.14	-1.771	26.234	33.058	26.629	1440.2
112.0	114.13	-1.770	26.236	33.059	26.630	1440.2
113.0	115.13	-1.770	26.234	33.057	26.628	1440.2
114.0	116.13	-1.770	26.235	33.057	26.628	1440.2
115.0	117.16	-1.770	26.238	33.060	26.631	1440.2
116.0	118.18	-1.771	26.235	33.057	26.628	1440.3
117.0	119.19	-1.771	26.236	33.057	26.628	1440.3
118.0	120.21	-1.771	26.237	33.058	26.629	1440.3
119.0	121.25	-1.771	26.239	33.060	26.630	1440.3
120.0	122.27	-1.772	26.237	33.058	26.629	1440.3
121.0	123.26	-1.772	26.237	33.058	26.629	1440.3
122.0	124.29	-1.772	26.237	33.057	26.628	1440.3
123.0	125.26	-1.772	26.238	33.058	26.629	1440.4
124.0	126.29	-1.773	26.238	33.058	26.628	1440.4
125.0	127.29	-1.772	26.238	33.057	26.628	1440.4
126.0	128.28	-1.772	26.240	33.059	26.629	1440.4
127.0	129.32	-1.771	26.242	33.060	26.630	1440.4
128.0	130.32	-1.771	26.242	33.059	26.630	1440.5
129.0	131.32	-1.770	26.244	33.060	26.630	1440.5

EXPERIMENT 3025

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
130.0	132.32	-1.769	26.246	33.061	26.631	1440.5
131.0	133.34	-1.769	26.246	33.060	26.631	1440.5
132.0	134.34	-1.768	26.248	33.062	26.632	1440.5
133.0	135.36	-1.767	26.250	33.062	26.632	1440.6
134.0	136.36	-1.766	26.252	33.064	26.633	1440.6
135.0	137.37	-1.765	26.254	33.065	26.634	1440.6
136.0	138.37	-1.765	26.254	33.064	26.634	1440.6
137.0	139.38	-1.765	26.256	33.066	26.635	1440.6
138.0	140.39	-1.765	26.256	33.065	26.634	1440.7
139.0	141.43	-1.764	26.258	33.067	26.636	1440.7
140.0	142.43	-1.761	26.262	33.069	26.637	1440.7
141.0	143.45	-1.761	26.263	33.070	26.638	1440.7
142.0	144.47	-1.760	26.265	33.069	26.638	1440.8
143.0	145.48	-1.759	26.266	33.070	26.638	1440.8
144.0	146.49	-1.758	26.268	33.071	26.639	1440.8
145.0	147.50	-1.759	26.267	33.070	26.638	1440.8
146.0	148.51	-1.759	26.268	33.071	26.639	1440.8
147.0	149.52	-1.760	26.267	33.071	26.639	1440.8
148.0	150.52	-1.761	26.269	33.074	26.642	1440.9
149.0	151.54	-1.761	26.268	33.072	26.640	1440.9
150.0	152.52	-1.761	26.269	33.072	26.640	1440.9
151.0	153.55	-1.760	26.270	33.073	26.641	1440.9
152.0	154.57	-1.761	26.271	33.073	26.641	1440.9
153.0	155.61	-1.760	26.272	33.073	26.641	1440.9
154.0	156.61	-1.760	26.274	33.075	26.642	1441.0
155.0	157.64	-1.760	26.272	33.072	26.640	1441.0
156.0	158.64	-1.759	26.275	33.075	26.642	1441.0
157.0	159.67	-1.759	26.276	33.076	26.643	1441.0
158.0	160.67	-1.759	26.278	33.078	26.645	1441.0
159.0	161.70	-1.758	26.276	33.074	26.642	1441.1
160.0	162.71	-1.758	26.277	33.075	26.642	1441.1
161.0	163.68	-1.758	26.278	33.075	26.642	1441.1
162.0	164.66	-1.758	26.279	33.076	26.643	1441.1
163.0	165.67	-1.757	26.280	33.076	26.643	1441.1
164.0	166.70	-1.757	26.282	33.077	26.644	1441.1
165.0	167.71	-1.757	26.283	33.078	26.645	1441.2
166.0	168.75	-1.757	26.284	33.079	26.645	1441.2
167.0	169.78	-1.757	26.284	33.078	26.645	1441.2
168.0	170.79	-1.757	26.285	33.078	26.645	1441.2
169.0	171.78	-1.756	26.285	33.078	26.645	1441.2
170.0	172.80	-1.757	26.286	33.079	26.645	1441.2
171.0	173.74	-1.756	26.286	33.079	26.645	1441.3
172.0	174.78	-1.757	26.288	33.081	26.647	1441.3
173.0	175.79	-1.757	26.289	33.081	26.647	1441.3
174.0	176.80	-1.757	26.289	33.080	26.647	1441.3
175.0	177.82	-1.757	26.290	33.081	26.647	1441.3
176.0	178.82	-1.758	26.291	33.083	26.649	1441.3
177.0	179.84	-1.760	26.290	33.083	26.649	1441.4
178.0	180.85	-1.761	26.289	33.083	26.649	1441.4
179.0	181.85	-1.761	26.290	33.085	26.650	1441.4
180.0	182.86	-1.761	26.292	33.087	26.652	1441.4
181.0	183.86	-1.762	26.290	33.083	26.649	1441.4
182.0	184.87	-1.761	26.291	33.084	26.650	1441.4
183.0	185.89	-1.762	26.292	33.086	26.651	1441.4
184.0	186.91	-1.761	26.292	33.085	26.650	1441.5
185.0	187.91	-1.762	26.292	33.085	26.650	1441.5
186.0	188.92	-1.762	26.292	33.084	26.650	1441.5
187.0	189.95	-1.762	26.293	33.085	26.651	1441.5
188.0	190.96	-1.762	26.293	33.084	26.650	1441.5
189.0	191.95	-1.762	26.294	33.085	26.650	1441.5
190.0	192.97	-1.761	26.296	33.086	26.651	1441.6
191.0	193.97	-1.761	26.296	33.085	26.650	1441.6
192.0	194.98	-1.760	26.298	33.085	26.650	1441.6
193.0	196.03	-1.759	26.298	33.085	26.650	1441.6
194.0	197.01	-1.758	26.300	33.087	26.652	1441.6
195.0	198.02	-1.759	26.300	33.086	26.651	1441.7
196.0	199.04	-1.758	26.300	33.085	26.650	1441.7

EXPERIMENT 3025

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
197.0	200.03	-1.758	26.301	33.085	26.651	1441.7
198.0	201.05	-1.758	26.302	33.086	26.651	1441.7
199.0	202.07	-1.759	26.303	33.087	26.652	1441.7
200.0	203.04	-1.759	26.302	33.086	26.651	1441.7
201.0	204.03	-1.758	26.304	33.086	26.651	1441.8
202.0	205.05	-1.758	26.304	33.086	26.651	1441.8
203.0	206.07	-1.756	26.306	33.086	26.651	1441.8
204.0	207.09	-1.757	26.306	33.086	26.651	1441.8
205.0	208.11	-1.760	26.303	33.085	26.650	1441.8
206.0	209.13	-1.761	26.303	33.086	26.651	1441.8
207.0	210.13	-1.754	26.310	33.088	26.652	1441.9
208.0	211.14	-1.757	26.308	33.087	26.652	1441.9
209.0	212.15	-1.759	26.307	33.087	26.652	1441.9
210.0	213.15	-1.759	26.307	33.087	26.652	1441.9
211.0	214.15	-1.759	26.307	33.087	26.652	1441.9
212.0	215.17	-1.760	26.310	33.091	26.655	1441.9
213.0	216.17	-1.756	26.313	33.090	26.654	1442.0
214.0	217.21	-1.756	26.313	33.090	26.654	1442.0
215.0	218.21	-1.757	26.314	33.091	26.655	1442.0
216.0	219.22	-1.757	26.313	33.090	26.654	1442.0
217.0	220.21	-1.757	26.315	33.092	26.656	1442.0
218.0	221.21	-1.757	26.315	33.091	26.655	1442.1
219.0	222.20	-1.755	26.317	33.092	26.656	1442.1
220.0	223.23	-1.754	26.320	33.092	26.656	1442.1
221.0	224.23	-1.756	26.320	33.094	26.658	1442.1
222.0	225.33	-1.756	26.319	33.093	26.657	1442.1
223.0	226.28	-1.756	26.319	33.092	26.656	1442.1
224.0	227.27	-1.756	26.319	33.092	26.656	1442.2
225.0	228.26	-1.755	26.321	33.092	26.656	1442.2
226.0	229.26	-1.755	26.321	33.092	26.656	1442.2
227.0	230.28	-1.756	26.321	33.092	26.656	1442.2
228.0	231.31	-1.755	26.322	33.092	26.656	1442.2
229.0	232.34	-1.754	26.323	33.092	26.656	1442.3
230.0	233.33	-1.751	26.326	33.092	26.656	1442.3
231.0	234.29	-1.749	26.328	33.093	26.657	1442.3
232.0	235.32	-1.748	26.331	33.094	26.658	1442.3
233.0	236.36	-1.750	26.330	33.095	26.658	1442.3
234.0	237.39	-1.750	26.330	33.095	26.658	1442.4
235.0	238.40	-1.750	26.330	33.094	26.658	1442.4
236.0	239.36	-1.750	26.330	33.093	26.657	1442.4
237.0	240.36	-1.746	26.335	33.094	26.658	1442.4
238.0	241.36	-1.745	26.336	33.095	26.658	1442.5
239.0	242.37	-1.745	26.337	33.096	26.659	1442.5
240.0	243.37	-1.745	26.337	33.096	26.659	1442.5
241.0	244.37	-1.745	26.338	33.096	26.659	1442.5
242.0	245.38	-1.745	26.341	33.100	26.662	1442.5
243.0	246.39	-1.745	26.341	33.099	26.661	1442.5
244.0	247.40	-1.746	26.339	33.096	26.659	1442.5
245.0	248.42	-1.744	26.340	33.096	26.659	1442.6
246.0	249.39	-1.741	26.344	33.097	26.660	1442.6
247.0	250.41	-1.744	26.339	33.092	26.656	1442.6
248.0	251.42	-1.739	26.347	33.098	26.660	1442.6
249.0	252.43	-1.737	26.351	33.100	26.662	1442.7
250.0	253.47	-1.739	26.349	33.099	26.661	1442.7
251.0	254.49	-1.739	26.349	33.099	26.661	1442.7
252.0	255.47	-1.737	26.351	33.098	26.661	1442.7
253.0	256.45	-1.734	26.355	33.100	26.662	1442.8
254.0	257.46	-1.737	26.353	33.100	26.662	1442.8
255.0	258.41	-1.734	26.354	33.098	26.660	1442.8
256.0	259.45	-1.732	26.358	33.101	26.663	1442.8
257.0	260.44	-1.730	26.360	33.105	26.666	1442.8
258.0	261.47	-1.725	26.367	33.104	26.665	1442.9
259.0	262.47	-1.723	26.371	33.106	26.667	1442.9
260.0	263.46	-1.722	26.374	33.109	26.669	1442.9
261.0	264.46	-1.722	26.372	33.106	26.667	1443.0
262.0	265.47	-1.722	26.373	33.106	26.667	1443.0
263.0	266.45	-1.721	26.375	33.105	26.665	1443.0

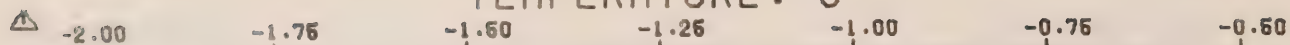
EXPERIMENT 3025

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
264.0	267.48	-1.721	26.374	33.105	26.666	1443.0
265.0	268.45	-1.721	26.375	33.106	26.666	1443.0
266.0	269.45	-1.721	26.375	33.107	26.667	1443.0
267.0	270.47	-1.721	26.376	33.107	26.667	1443.1
268.0	271.49	-1.721	26.376	33.105	26.666	1443.1
269.0	272.42	-1.721	26.376	33.105	26.666	1443.1
270.0	273.36	-1.721	26.376	33.105	26.666	1443.1

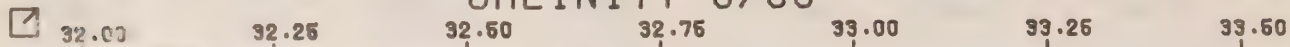
EXPERIMENT 3026

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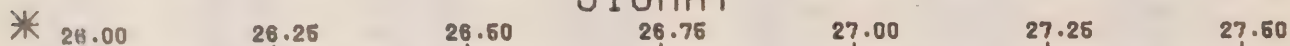
TEMPERATURE. C



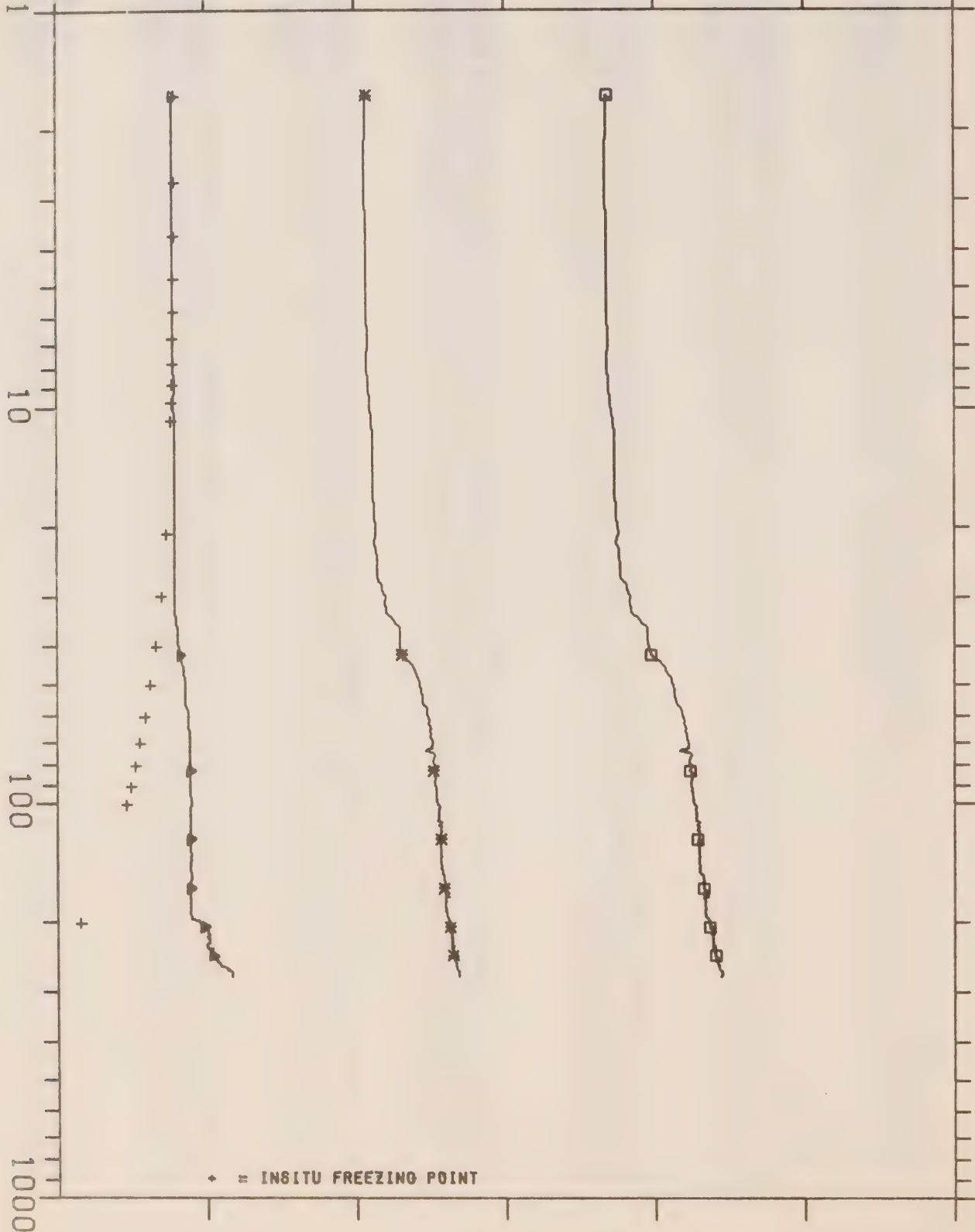
SALINITY 0/00



SIGMAT



DEPTH M



+ = INSITU FREEZING POINT

CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3026
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0725
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
1.0	1.65	-1.806	26.060	32.921	26.518	1438.0
2.0	2.72	-1.804	26.059	32.917	26.515	1438.0
3.0	3.72	-1.804	26.061	32.919	26.517	1438.0
4.0	4.76	-1.804	26.063	32.921	26.518	1438.0
5.0	5.78	-1.804	26.063	32.921	26.518	1438.1
6.0	6.76	-1.804	26.065	32.922	26.519	1438.1
7.0	7.81	-1.804	26.064	32.921	26.518	1438.1
8.0	8.78	-1.804	26.066	32.923	26.520	1438.1
9.0	9.80	-1.804	26.069	32.926	26.522	1438.1
10.0	10.84	-1.804	26.071	32.929	26.525	1438.2
11.0	11.83	-1.804	26.074	32.932	26.527	1438.2
12.0	12.82	-1.803	26.075	32.932	26.527	1438.2
13.0	13.85	-1.804	26.075	32.932	26.527	1438.2
14.0	14.91	-1.803	26.076	32.933	26.528	1438.2
15.0	15.87	-1.804	26.076	32.932	26.528	1438.2
16.0	16.85	-1.804	26.077	32.933	26.528	1438.3
17.0	17.92	-1.803	26.079	32.935	26.530	1438.3
18.0	18.93	-1.803	26.080	32.935	26.530	1438.3
19.0	19.91	-1.803	26.082	32.937	26.532	1438.3
20.0	20.97	-1.803	26.084	32.939	26.533	1438.3
21.0	21.96	-1.803	26.082	32.936	26.530	1438.4
22.0	23.00	-1.803	26.085	32.939	26.533	1438.4
23.0	24.01	-1.802	26.086	32.940	26.534	1438.4
24.0	25.01	-1.802	26.088	32.942	26.535	1438.4
25.0	26.03	-1.802	26.089	32.943	26.536	1438.4
26.0	27.06	-1.802	26.089	32.942	26.536	1438.4
27.0	27.99	-1.802	26.097	32.952	26.544	1438.5
28.0	29.01	-1.802	26.097	32.952	26.543	1438.5
29.0	30.05	-1.802	26.103	32.960	26.549	1438.5
30.0	31.08	-1.802	26.102	32.957	26.547	1438.5
31.0	32.06	-1.802	26.104	32.960	26.550	1438.6
32.0	33.11	-1.802	26.105	32.961	26.550	1438.6
33.0	34.06	-1.801	26.115	32.973	26.561	1438.6
34.0	35.08	-1.800	26.119	32.977	26.564	1438.6
35.0	36.10	-1.797	26.129	32.987	26.572	1438.7
36.0	37.12	-1.797	26.130	32.988	26.573	1438.7
37.0	38.17	-1.797	26.131	32.988	26.572	1438.7
38.0	39.14	-1.797	26.131	32.987	26.572	1438.7
39.0	40.16	-1.795	26.134	32.989	26.573	1438.8
40.0	41.15	-1.795	26.135	32.989	26.574	1438.8
41.0	42.19	-1.794	26.139	32.993	26.577	1438.8
42.0	43.23	-1.792	26.145	32.999	26.581	1438.8
43.0	44.22	-1.789	26.155	33.009	26.589	1438.9
44.0	45.26	-1.787	26.163	33.017	26.596	1438.9
45.0	46.27	-1.787	26.164	33.019	26.597	1438.9
46.0	47.28	-1.787	26.169	33.024	26.601	1439.0
47.0	48.30	-1.786	26.172	33.027	26.604	1439.0
48.0	49.31	-1.786	26.173	33.028	26.605	1439.0
49.0	50.30	-1.785	26.175	33.029	26.605	1439.0
50.0	51.35	-1.785	26.178	33.032	26.608	1439.1
51.0	52.36	-1.786	26.178	33.033	26.609	1439.1
52.0	53.36	-1.786	26.179	33.034	26.609	1439.1
53.0	54.38	-1.786	26.180	33.035	26.610	1439.1
54.0	55.41	-1.785	26.182	33.036	26.611	1439.1
55.0	56.40	-1.785	26.184	33.038	26.613	1439.1
56.0	57.39	-1.781	26.191	33.043	26.617	1439.2
57.0	58.44	-1.781	26.193	33.045	26.618	1439.2
58.0	59.47	-1.781	26.194	33.045	26.618	1439.2
59.0	60.43	-1.780	26.197	33.048	26.621	1439.3
60.0	61.49	-1.780	26.199	33.050	26.622	1439.3
61.0	62.53	-1.780	26.199	33.048	26.621	1439.3
62.0	63.54	-1.779	26.200	33.049	26.622	1439.3

EXPERIMENT 3026

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
63.0	64.52	-1.779	26.202	33.052	26.624	1439.3
64.0	65.52	-1.779	26.202	33.051	26.623	1439.3
65.0	66.56	-1.779	26.204	33.053	26.624	1439.4
66.0	67.56	-1.778	26.204	33.052	26.624	1439.4
67.0	68.52	-1.778	26.205	33.052	26.624	1439.4
68.0	69.51	-1.778	26.208	33.055	26.626	1439.4
69.0	70.57	-1.778	26.209	33.057	26.628	1439.4
70.0	71.57	-1.778	26.208	33.054	26.626	1439.5
71.0	72.54	-1.778	26.210	33.057	26.628	1439.5
72.0	73.54	-1.777	26.199	33.041	26.615	1439.5
73.0	74.57	-1.777	26.212	33.057	26.628	1439.5
74.0	75.60	-1.777	26.215	33.061	26.632	1439.5
75.0	76.61	-1.777	26.215	33.060	26.630	1439.5
76.0	77.59	-1.777	26.214	33.058	26.628	1439.6
77.0	78.62	-1.777	26.214	33.057	26.628	1439.6
78.0	79.68	-1.777	26.215	33.058	26.629	1439.6
79.0	80.69	-1.777	26.218	33.062	26.632	1439.6
80.0	81.68	-1.777	26.217	33.059	26.630	1439.6
81.0	82.68	-1.777	26.217	33.059	26.629	1439.6
82.0	83.70	-1.777	26.219	33.062	26.632	1439.7
83.0	84.75	-1.777	26.218	33.059	26.630	1439.7
84.0	85.75	-1.777	26.221	33.062	26.632	1439.7
85.0	86.75	-1.777	26.222	33.063	26.633	1439.7
86.0	87.73	-1.777	26.219	33.060	26.630	1439.7
87.0	88.74	-1.777	26.221	33.060	26.631	1439.7
88.0	89.78	-1.776	26.221	33.060	26.630	1439.8
89.0	90.79	-1.777	26.222	33.061	26.631	1439.8
90.0	91.79	-1.776	26.224	33.062	26.632	1439.8
91.0	92.78	-1.777	26.223	33.061	26.631	1439.8
92.0	93.79	-1.777	26.224	33.062	26.632	1439.8
93.0	94.77	-1.776	26.225	33.062	26.632	1439.9
94.0	95.81	-1.776	26.225	33.062	26.632	1439.9
95.0	96.84	-1.776	26.226	33.062	26.632	1439.9
96.0	97.86	-1.776	26.228	33.064	26.634	1439.9
97.0	98.90	-1.776	26.227	33.062	26.632	1439.9
98.0	99.90	-1.776	26.229	33.065	26.634	1439.9
99.0	100.87	-1.776	26.229	33.064	26.634	1440.0
100.0	101.90	-1.777	26.234	33.070	26.639	1440.0
101.0	102.89	-1.776	26.233	33.068	26.637	1440.0
102.0	103.93	-1.776	26.233	33.068	26.637	1440.0
103.0	104.93	-1.776	26.234	33.069	26.637	1440.0
104.0	105.91	-1.777	26.234	33.069	26.638	1440.0
105.0	106.95	-1.777	26.234	33.068	26.637	1440.1
106.0	107.97	-1.777	26.235	33.070	26.638	1440.1
107.0	108.98	-1.777	26.235	33.068	26.637	1440.1
108.0	109.95	-1.777	26.236	33.070	26.639	1440.1
109.0	110.96	-1.777	26.234	33.067	26.636	1440.1
110.0	112.00	-1.777	26.241	33.076	26.643	1440.1
111.0	113.04	-1.777	26.237	33.070	26.639	1440.2
112.0	114.01	-1.777	26.241	33.074	26.642	1440.2
113.0	115.01	-1.777	26.240	33.072	26.640	1440.2
114.0	116.04	-1.777	26.239	33.070	26.639	1440.2
115.0	117.08	-1.777	26.243	33.075	26.643	1440.2
116.0	118.07	-1.777	26.241	33.072	26.640	1440.2
117.0	119.06	-1.777	26.243	33.073	26.641	1440.3
118.0	120.05	-1.777	26.243	33.073	26.641	1440.3
119.0	121.12	-1.777	26.244	33.074	26.641	1440.3
120.0	122.15	-1.777	26.245	33.074	26.642	1440.3
121.0	123.15	-1.777	26.243	33.072	26.640	1440.3
122.0	124.12	-1.777	26.244	33.073	26.641	1440.3
123.0	125.16	-1.777	26.244	33.072	26.640	1440.4
124.0	126.17	-1.777	26.244	33.071	26.639	1440.4
125.0	127.24	-1.777	26.246	33.072	26.640	1440.4
126.0	128.26	-1.777	26.246	33.072	26.640	1440.4
127.0	129.24	-1.777	26.247	33.073	26.641	1440.4
128.0	130.21	-1.777	26.247	33.073	26.641	1440.4
129.0	131.22	-1.776	26.248	33.072	26.640	1440.5

EXPERIMENT 3026

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG. C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
130.0	132.27	-1.777	26.248	33.073	26.641	1440.5
131.0	133.29	-1.776	26.249	33.073	26.641	1440.5
132.0	134.29	-1.776	26.250	33.073	26.641	1440.5
133.0	135.33	-1.776	26.250	33.073	26.641	1440.5
134.0	136.32	-1.776	26.251	33.074	26.642	1440.5
135.0	137.31	-1.776	26.250	33.072	26.640	1440.6
136.0	138.33	-1.776	26.251	33.072	26.640	1440.6
137.0	139.35	-1.776	26.251	33.072	26.640	1440.6
138.0	140.37	-1.776	26.252	33.073	26.641	1440.6
139.0	141.39	-1.777	26.252	33.073	26.641	1440.6
140.0	142.41	-1.777	26.252	33.073	26.641	1440.6
141.0	143.44	-1.777	26.254	33.075	26.643	1440.7
142.0	144.44	-1.777	26.254	33.074	26.642	1440.7
143.0	145.43	-1.777	26.254	33.073	26.641	1440.7
144.0	146.45	-1.777	26.256	33.075	26.642	1440.7
145.0	147.45	-1.777	26.256	33.075	26.642	1440.7
146.0	148.46	-1.777	26.256	33.074	26.642	1440.7
147.0	149.50	-1.775	26.259	33.075	26.643	1440.8
148.0	150.52	-1.775	26.260	33.076	26.644	1440.8
149.0	151.52	-1.776	26.261	33.078	26.645	1440.8
150.0	152.55	-1.776	26.262	33.079	26.646	1440.8
151.0	153.56	-1.775	26.263	33.079	26.646	1440.8
152.0	154.58	-1.776	26.263	33.079	26.646	1440.9
153.0	155.60	-1.777	26.263	33.079	26.646	1440.9
154.0	156.62	-1.778	26.264	33.081	26.648	1440.9
155.0	157.62	-1.777	26.265	33.081	26.648	1440.9
156.0	158.61	-1.777	26.265	33.081	26.648	1440.9
157.0	159.62	-1.778	26.265	33.081	26.647	1440.9
158.0	160.63	-1.778	26.265	33.080	26.647	1440.9
159.0	161.64	-1.778	26.266	33.081	26.648	1441.0
160.0	162.66	-1.777	26.267	33.081	26.648	1441.0
161.0	163.67	-1.777	26.266	33.080	26.647	1441.0
162.0	164.69	-1.777	26.268	33.082	26.648	1441.0
163.0	165.69	-1.777	26.269	33.082	26.648	1441.0
164.0	166.71	-1.777	26.269	33.081	26.647	1441.1
165.0	167.70	-1.777	26.272	33.085	26.651	1441.1
166.0	168.73	-1.777	26.272	33.084	26.650	1441.1
167.0	169.73	-1.777	26.269	33.080	26.647	1441.1
168.0	170.77	-1.777	26.271	33.081	26.648	1441.1
169.0	171.75	-1.777	26.277	33.089	26.654	1441.1
170.0	172.74	-1.776	26.272	33.081	26.648	1441.2
171.0	173.77	-1.777	26.274	33.083	26.649	1441.2
172.0	174.79	-1.776	26.273	33.082	26.648	1441.2
173.0	175.83	-1.777	26.274	33.082	26.649	1441.2
174.0	176.87	-1.777	26.275	33.084	26.650	1441.2
175.0	177.88	-1.777	26.274	33.082	26.648	1441.2
176.0	178.86	-1.777	26.275	33.082	26.649	1441.3
177.0	179.89	-1.777	26.275	33.082	26.648	1441.3
178.0	180.88	-1.777	26.276	33.083	26.649	1441.3
179.0	181.87	-1.777	26.276	33.082	26.648	1441.3
180.0	182.90	-1.776	26.277	33.082	26.648	1441.3
181.0	183.88	-1.776	26.280	33.086	26.651	1441.3
182.0	184.92	-1.776	26.277	33.082	26.648	1441.4
183.0	185.95	-1.776	26.279	33.083	26.649	1441.4
184.0	186.99	-1.776	26.279	33.082	26.648	1441.4
185.0	187.99	-1.777	26.280	33.083	26.649	1441.4
186.0	189.02	-1.777				
187.0	189.98	-1.777	26.280	33.083	26.649	1441.4
188.0	191.02	-1.777	26.282	33.085	26.650	1441.5
189.0	192.03	-1.776	26.282	33.084	26.650	1441.5
190.0	193.04	-1.776	26.284	33.086	26.652	1441.5
191.0	194.01	-1.776	26.285	33.086	26.652	1441.5
192.0	195.03	-1.775	26.287	33.087	26.652	1441.5
193.0	196.05	-1.773	26.289	33.088	26.653	1441.6
194.0	197.05	-1.766	26.297	33.089	26.654	1441.6
195.0	198.10	-1.762	26.300	33.089	26.654	1441.7
196.0	199.11	-1.762	26.303	33.092	26.656	1441.7

EXPERIMENT 3026

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
197.0	200.10	-1.757	26.307	33.092	26.656	1441.7
198.0	201.14	-1.756	26.308	33.092	26.656	1441.7
199.0	202.14	-1.757	26.307	33.091	26.655	1441.7
200.0	203.14	-1.755	26.309	33.091	26.655	1441.8
201.0	204.18	-1.755	26.310	33.092	26.656	1441.8
202.0	205.21	-1.755	26.314	33.097	26.660	1441.8
203.0	206.20	-1.752	26.313	33.091	26.655	1441.8
204.0	207.20	-1.750	26.315	33.093	26.656	1441.9
205.0	208.21	-1.748	26.317	33.092	26.656	1441.9
206.0	209.22	-1.746	26.321	33.094	26.658	1441.9
207.0	210.27	-1.747	26.321	33.094	26.658	1441.9
208.0	211.25	-1.747	26.323	33.098	26.660	1441.9
209.0	212.26	-1.747	26.324	33.098	26.660	1442.0
210.0	213.29	-1.746	26.322	33.093	26.657	1442.0
211.0	214.28	-1.746	26.325	33.097	26.660	1442.0
212.0	215.27	-1.747	26.323	33.095	26.658	1442.0
213.0	216.32	-1.749	26.322	33.095	26.659	1442.0
214.0	217.30	-1.750	26.322	33.095	26.658	1442.0
215.0	218.30	-1.747	26.326	33.097	26.660	1442.1
216.0	219.35	-1.746	26.326	33.094	26.658	1442.1
217.0	220.32	-1.745	26.327	33.095	26.658	1442.1
218.0	221.33	-1.745	26.328	33.096	26.659	1442.1
219.0	222.36	-1.745	26.328	33.096	26.659	1442.1
220.0	223.38	-1.745	26.329	33.095	26.658	1442.2
221.0	224.39	-1.746	26.331	33.099	26.661	1442.2
222.0	225.42	-1.748	26.327	33.096	26.659	1442.2
223.0	226.44	-1.750	26.326	33.096	26.659	1442.2
224.0	227.45	-1.750	26.328	33.097	26.660	1442.2
225.0	228.45	-1.751	26.329	33.100	26.662	1442.2
226.0	229.47	-1.750	26.331	33.100	26.662	1442.2
227.0	230.44	-1.750	26.328	33.095	26.659	1442.2
228.0	231.43	-1.745	26.332	33.095	26.658	1442.3
229.0	232.47	-1.741	26.337	33.098	26.660	1442.3
230.0	233.47	-1.742	26.337	33.098	26.661	1442.3
231.0	234.50	-1.742	26.337	33.098	26.660	1442.4
232.0	235.55	-1.742	26.339	33.099	26.661	1442.4
233.0	236.54	-1.741	26.339	33.098	26.660	1442.4
234.0	237.52	-1.740	26.341	33.099	26.661	1442.4
235.0	238.52	-1.741	26.341	33.099	26.661	1442.4
236.0	239.52	-1.741	26.342	33.099	26.661	1442.4
237.0	240.52	-1.740	26.342	33.099	26.662	1442.5
238.0	241.55	-1.740	26.344	33.101	26.663	1442.5
239.0	242.55	-1.740	26.345	33.100	26.662	1442.5
240.0	243.58	-1.740	26.346	33.102	26.664	1442.5
241.0	244.61	-1.739	26.349	33.103	26.665	1442.5
242.0	245.58	-1.737	26.349	33.102	26.664	1442.6
243.0	246.60	-1.737	26.348	33.100	26.662	1442.6
244.0	247.59	-1.735	26.351	33.100	26.662	1442.6
245.0	248.60	-1.734	26.353	33.102	26.663	1442.6
246.0	249.60	-1.733	26.354	33.102	26.663	1442.7
247.0	250.67	-1.733	26.356	33.103	26.664	1442.7
248.0	251.62	-1.729	26.358	33.103	26.664	1442.7
249.0	252.67	-1.728	26.362	33.106	26.666	1442.7
250.0	253.67	-1.728	26.362	33.104	26.665	1442.7
251.0	254.69	-1.727	26.363	33.105	26.666	1442.8
252.0	255.68	-1.726	26.366	33.107	26.668	1442.8
253.0	256.71	-1.723	26.367	33.104	26.665	1442.8
254.0	257.71	-1.723	26.368	33.105	26.666	1442.8
255.0	258.75	-1.721	26.372	33.108	26.668	1442.9
256.0	259.76	-1.716	26.376	33.108	26.668	1442.9
257.0	260.77	-1.717	26.376	33.109	26.669	1442.9
258.0	261.78	-1.717	26.376	33.108	26.668	1442.9
259.0	262.82	-1.713	26.381	33.109	26.669	1443.0
260.0	263.81	-1.715	26.380	33.109	26.669	1443.0
261.0	264.80	-1.710	26.380	33.111	26.671	1443.0
262.0	265.81	-1.709	26.389	33.114	26.673	1443.1
263.0	266.83	-1.708	26.388	33.111	26.670	1443.1

EXPERIMENT 3026

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
264.0	267.85	-1.708	26.389	33.111	26.671	1443.1
265.0	268.86	-1.708	26.389	33.111	26.671	1443.1
266.0	269.85	-1.708	26.390	33.111	26.670	1443.1
267.0	270.83	-1.708	26.390	33.112	26.671	1443.1
268.0	271.85	-1.707	26.392	33.112	26.672	1443.2
269.0	272.84	-1.707	26.391	33.111	26.670	1443.2
270.0	273.67	-1.707	26.392	33.111	26.670	1443.2

EXPERIMENT 3027

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

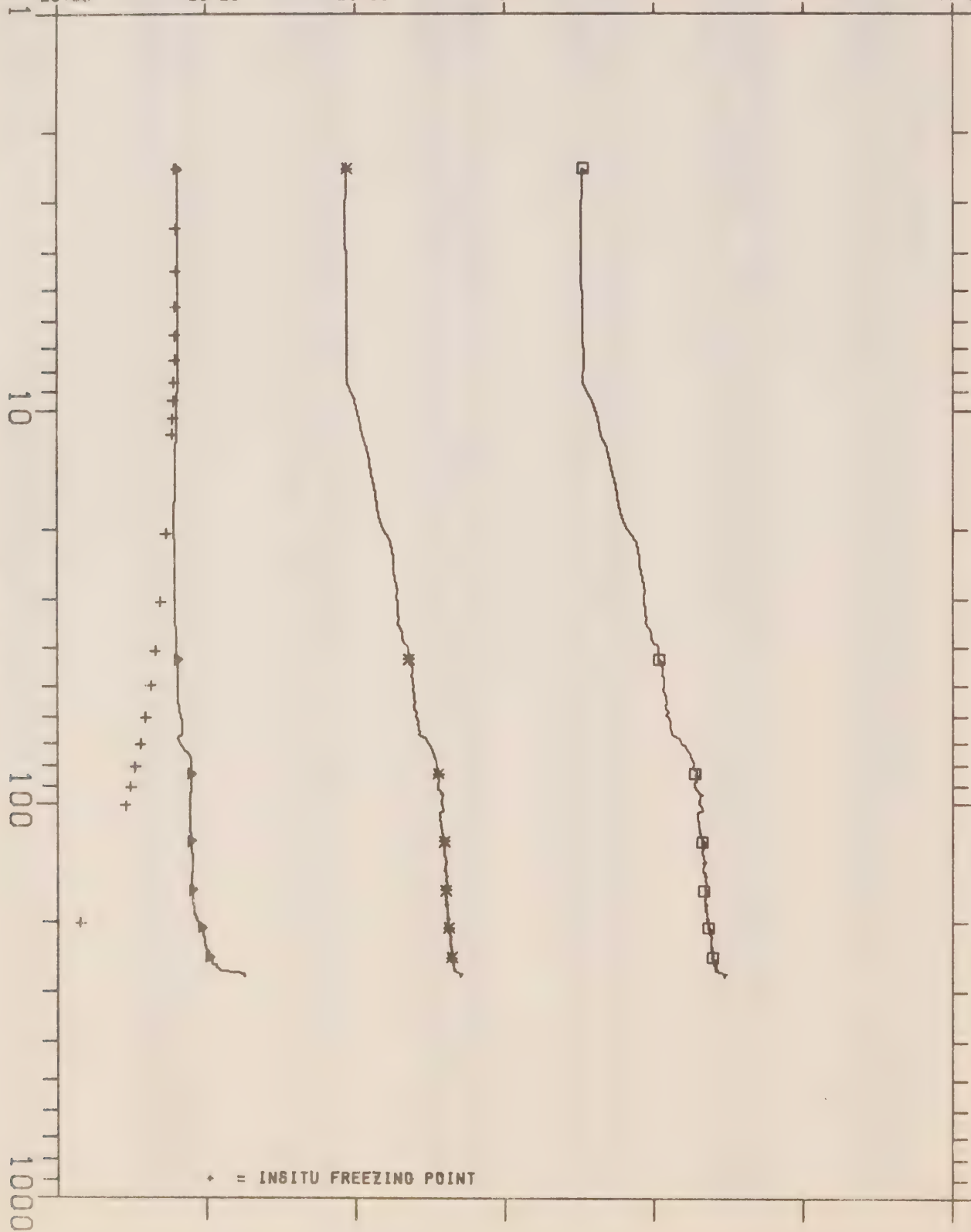
SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(6)B EXPERIMENT 3027
 LAT.N. 75-29-49 LONG.W. 97-02-56 DATE 040477 G.M.T. 0839
 U.T.M. ZONE 14 8379694 N 554524 E DEPTH INCR 1.00 WATER DEPTH 271 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.47	-1.798	26.038	32.881	26.486	1438.0
3.0	3.51	-1.798	26.037	32.878	26.484	1438.0
4.0	4.49	-1.798	26.037	32.879	26.484	1438.0
5.0	5.51	-1.798	26.039	32.880	26.485	1438.0
6.0	6.53	-1.798	26.039	32.880	26.485	1438.0
7.0	7.52	-1.798	26.041	32.882	26.486	1438.1
8.0	8.57	-1.798	26.041	32.881	26.486	1438.1
9.0	9.56	-1.799	26.051	32.896	26.498	1438.1
10.0	10.57	-1.800	26.057	32.904	26.504	1438.1
11.0	11.58	-1.800	26.061	32.910	26.509	1438.2
12.0	12.59	-1.801	26.068	32.920	26.517	1438.2
13.0	13.60	-1.802	26.072	32.926	26.522	1438.2
14.0	14.65	-1.803	26.075	32.930	26.526	1438.2
15.0	15.62	-1.803	26.079	32.936	26.531	1438.2
16.0	16.59	-1.804	26.081	32.938	26.532	1438.3
17.0	17.65	-1.804	26.082	32.940	26.534	1438.3
18.0	18.66	-1.804	26.086	32.946	26.539	1438.3
19.0	19.68	-1.804	26.090	32.950	26.541	1438.3
20.0	20.67	-1.804	26.098	32.960	26.550	1438.4
21.0	21.71	-1.803	26.106	32.970	26.558	1438.4
22.0	22.72	-1.803	26.109	32.973	26.561	1438.4
23.0	23.76	-1.803	26.111	32.975	26.562	1438.4
24.0	24.76	-1.802	26.112	32.976	26.563	1438.5
25.0	25.77	-1.803	26.113	32.977	26.564	1438.5
26.0	26.78	-1.803	26.115	32.979	26.565	1438.5
27.0	27.78	-1.803	26.118	32.983	26.568	1438.5
28.0	28.78	-1.803	26.120	32.985	26.570	1438.5
29.0	29.80	-1.803	26.119	32.982	26.568	1438.5
30.0	30.79	-1.803	26.120	32.983	26.569	1438.6
31.0	31.81	-1.803	26.121	32.984	26.569	1438.6
32.0	32.87	-1.802	26.122	32.985	26.570	1438.6
33.0	33.81	-1.802	26.124	32.986	26.571	1438.6
34.0	34.87	-1.802	26.124	32.985	26.570	1438.6
35.0	35.89	-1.801	26.129	32.992	26.576	1438.7
36.0	36.89	-1.801	26.131	32.994	26.577	1438.7
37.0	37.90	-1.801	26.132	32.994	26.578	1438.7
38.0	38.92	-1.801	26.134	32.997	26.579	1438.7
39.0	39.95	-1.800	26.144	33.008	26.588	1438.8
40.0	40.94	-1.799	26.143	33.007	26.588	1438.8
41.0	42.01	-1.799	26.145	33.008	26.589	1438.8
42.0	42.94	-1.799	26.146	33.008	26.589	1438.8
43.0	44.03	-1.798	26.147	33.008	26.589	1438.8
44.0	45.02	-1.798	26.152	33.015	26.594	1438.9
45.0	46.04	-1.797	26.154	33.016	26.595	1438.9
46.0	47.06	-1.797	26.153	33.013	26.593	1438.9
47.0	48.04	-1.797	26.156	33.017	26.596	1438.9
48.0	49.07	-1.797	26.156	33.016	26.595	1438.9
49.0	50.08	-1.797	26.157	33.017	26.596	1439.0
50.0	51.10	-1.797	26.156	33.016	26.595	1439.0
51.0	52.17	-1.797	26.159	33.018	26.597	1439.0
52.0	53.12	-1.797	26.159	33.019	26.598	1439.0
53.0	54.14	-1.797	26.160	33.019	26.598	1439.0
54.0	55.18	-1.796	26.163	33.021	26.600	1439.0
55.0	56.19	-1.796	26.163	33.020	26.599	1439.1
56.0	57.18	-1.796	26.163	33.020	26.599	1439.1
57.0	58.24	-1.795	26.168	33.026	26.603	1439.1
58.0	59.24	-1.793	26.167	33.021	26.599	1439.1
59.0	60.23	-1.792	26.170	33.025	26.602	1439.2
60.0	61.26	-1.790	26.174	33.027	26.604	1439.2
61.0	62.32	-1.790	26.174	33.026	26.603	1439.2
62.0	63.32	-1.790	26.176	33.027	26.604	1439.2
63.0	64.33	-1.790	26.177	33.028	26.605	1439.2

EXPERIMENT 3027

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.39	-1.789	26.180	33.031	26.607	1439.3
65.0	66.37	-1.789	26.179	33.030	26.606	1439.3
66.0	67.33	-1.797	26.179	33.037	26.612	1439.3
67.0	68.36	-1.797	26.183	33.043	26.617	1439.3
68.0	69.40	-1.795	26.187	33.046	26.619	1439.3
69.0	70.37	-1.793	26.191	33.048	26.621	1439.4
70.0	71.39	-1.789	26.197	33.052	26.624	1439.4
71.0	72.43	-1.787	26.202	33.056	26.627	1439.4
72.0	73.45	-1.782	26.208	33.058	26.629	1439.5
73.0	74.42	-1.780	26.212	33.060	26.630	1439.5
74.0	75.43	-1.778	26.214	33.061	26.631	1439.5
75.0	76.45	-1.776	26.218	33.063	26.633	1439.6
76.0	77.49	-1.775	26.220	33.065	26.634	1439.6
77.0	78.50	-1.775	26.222	33.067	26.636	1439.6
78.0	79.49	-1.775	26.222	33.067	26.636	1439.6
79.0	80.52	-1.775	26.222	33.066	26.635	1439.6
80.0	81.55	-1.776	26.224	33.068	26.637	1439.6
81.0	82.58	-1.776	26.227	33.072	26.640	1439.7
82.0	83.54	-1.776	26.225	33.069	26.638	1439.7
83.0	84.60	-1.776	26.226	33.069	26.638	1439.7
84.0	85.63	-1.775	26.227	33.070	26.639	1439.7
85.0	86.63	-1.776	26.228	33.071	26.640	1439.7
86.0	87.64	-1.776	26.230	33.072	26.641	1439.8
87.0	88.67	-1.776	26.227	33.069	26.638	1439.8
88.0	89.63	-1.776	26.227	33.068	26.637	1439.8
89.0	90.65	-1.776	26.228	33.069	26.638	1439.8
90.0	91.71	-1.776	26.229	33.069	26.638	1439.8
91.0	92.73	-1.776	26.234	33.076	26.643	1439.8
92.0	93.70	-1.776	26.234	33.075	26.643	1439.9
93.0	94.70	-1.777	26.239	33.082	26.648	1439.9
94.0	95.73	-1.776	26.236	33.077	26.644	1439.9
95.0	96.74	-1.777	26.236	33.077	26.644	1439.9
96.0	97.80	-1.777	26.235	33.075	26.643	1439.9
97.0	98.82	-1.777	26.238	33.078	26.645	1439.9
98.0	99.80	-1.777	26.236	33.075	26.643	1440.0
99.0	100.80	-1.777	26.238	33.078	26.645	1440.0
100.0	101.81	-1.777	26.240	33.079	26.646	1440.0
101.0	102.85	-1.776	26.242	33.081	26.648	1440.0
102.0	103.85	-1.776	26.242	33.081	26.648	1440.0
103.0	104.90	-1.777	26.235	33.071	26.640	1440.0
104.0	105.87	-1.777	26.236	33.072	26.641	1440.0
105.0	106.88	-1.777	26.237	33.072	26.640	1440.1
106.0	107.90	-1.777	26.238	33.073	26.641	1440.1
107.0	108.93	-1.777	26.238	33.072	26.640	1440.1
108.0	109.93	-1.777	26.238	33.072	26.640	1440.1
109.0	110.96	-1.778	26.239	33.074	26.642	1440.1
110.0	111.99	-1.778	26.240	33.074	26.642	1440.1
111.0	112.99	-1.778	26.241	33.076	26.644	1440.2
112.0	113.98	-1.779	26.240	33.074	26.642	1440.2
113.0	115.04	-1.778	26.241	33.075	26.643	1440.2
114.0	116.08	-1.777	26.244	33.077	26.644	1440.2
115.0	117.07	-1.776	26.244	33.075	26.643	1440.2
116.0	118.02	-1.775	26.247	33.077	26.644	1440.3
117.0	119.11	-1.775	26.248	33.079	26.645	1440.3
118.0	120.13	-1.774	26.249	33.078	26.645	1440.3
119.0	121.16	-1.775	26.251	33.081	26.647	1440.3
120.0	122.12	-1.775	26.251	33.080	26.647	1440.3
121.0	123.12	-1.777	26.249	33.080	26.647	1440.3
122.0	124.15	-1.776	26.252	33.082	26.649	1440.4
123.0	125.21	-1.775	26.252	33.080	26.646	1440.4
124.0	126.22	-1.774	26.254	33.081	26.648	1440.4
125.0	127.20	-1.774	26.256	33.083	26.649	1440.4
126.0	128.18	-1.774	26.254	33.080	26.646	1440.4
127.0	129.26	-1.774	26.255	33.081	26.648	1440.5
128.0	130.29	-1.774	26.256	33.082	26.648	1440.5
129.0	131.29	-1.774	26.256	33.081	26.647	1440.5
130.0	132.27	-1.774	26.256	33.081	26.647	1440.5

EXPERIMENT 3027

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	133.29	-1.773	26.257	33.081	26.647	1440.5
132.0	134.28	-1.773	26.257	33.081	26.647	1440.5
133.0	135.33	-1.773	26.260	33.082	26.648	1440.6
134.0	136.37	-1.773	26.260	33.083	26.649	1440.6
135.0	137.38	-1.772	26.262	33.083	26.649	1440.6
136.0	138.40	-1.772	26.264	33.086	26.651	1440.6
137.0	139.42	-1.772	26.266	33.088	26.653	1440.6
138.0	140.39	-1.772	26.263	33.083	26.649	1440.6
139.0	141.39	-1.772	26.266	33.086	26.652	1440.7
140.0	142.42	-1.772	26.266	33.086	26.651	1440.7
141.0	143.48	-1.772	26.265	33.084	26.650	1440.7
142.0	144.49	-1.772	26.265	33.083	26.649	1440.7
143.0	145.51	-1.772	26.265	33.083	26.649	1440.7
144.0	146.54	-1.772	26.265	33.082	26.649	1440.7
145.0	147.55	-1.773	26.265	33.084	26.650	1440.8
146.0	148.54	-1.773	26.266	33.083	26.649	1440.8
147.0	149.55	-1.774	26.268	33.087	26.652	1440.8
148.0	150.55	-1.774	26.267	33.085	26.651	1440.8
149.0	151.58	-1.775	26.268	33.086	26.652	1440.8
150.0	152.59	-1.774	26.270	33.089	26.654	1440.8
151.0	153.61	-1.775	26.269	33.087	26.653	1440.9
152.0	154.61	-1.775	26.268	33.085	26.651	1440.9
153.0	155.64	-1.775	26.271	33.088	26.653	1440.9
154.0	156.68	-1.775	26.268	33.084	26.650	1440.9
155.0	157.70	-1.775	26.271	33.088	26.653	1440.9
156.0	158.68	-1.775	26.271	33.086	26.652	1440.9
157.0	159.73	-1.774	26.273	33.088	26.653	1441.0
158.0	160.73	-1.774	26.274	33.089	26.654	1441.0
159.0	161.73	-1.774	26.273	33.086	26.652	1441.0
160.0	162.75	-1.774	26.274	33.087	26.652	1441.0
161.0	163.79	-1.774	26.274	33.086	26.652	1441.0
162.0	164.80	-1.774	26.273	33.085	26.651	1441.0
163.0	165.80	-1.774	26.277	33.090	26.655	1441.1
164.0	166.82	-1.774	26.275	33.086	26.651	1441.1
165.0	167.82	-1.774	26.277	33.088	26.653	1441.1
166.0	168.85	-1.774	26.275	33.086	26.651	1441.1
167.0	169.84	-1.773	26.276	33.085	26.651	1441.1
168.0	170.88	-1.773	26.276	33.085	26.651	1441.1
169.0	171.87	-1.773	26.277	33.086	26.651	1441.2
170.0	172.89	-1.773	26.279	33.088	26.653	1441.2
171.0	173.89	-1.772	26.279	33.086	26.651	1441.2
172.0	174.89	-1.772	26.279	33.085	26.651	1441.2
173.0	175.92	-1.772	26.279	33.085	26.650	1441.2
174.0	176.95	-1.772	26.281	33.086	26.652	1441.3
175.0	177.98	-1.772	26.281	33.086	26.652	1441.3
176.0	179.01	-1.771	26.282	33.086	26.651	1441.3
177.0	180.01	-1.771	26.285	33.089	26.654	1441.3
178.0	181.01	-1.771	26.283	33.085	26.651	1441.3
179.0	182.01	-1.771	26.284	33.087	26.652	1441.3
180.0	183.02	-1.771	26.284	33.086	26.651	1441.4
181.0	184.04	-1.770	26.286	33.087	26.652	1441.4
182.0	185.04	-1.770	26.286	33.086	26.652	1441.4
183.0	186.07	-1.770	26.286	33.086	26.652	1441.4
184.0	187.10	-1.770	26.288	33.088	26.653	1441.4
185.0	188.12	-1.769	26.288	33.087	26.652	1441.5
186.0	189.14	-1.769	26.291	33.091	26.655	1441.5
187.0	190.14	-1.769	26.290	33.088	26.653	1441.5
188.0	191.18	-1.768	26.291	33.088	26.653	1441.5
189.0	192.20	-1.767	26.293	33.089	26.654	1441.5
190.0	193.19	-1.767	26.293	33.088	26.653	1441.5
191.0	194.20	-1.766	26.294	33.088	26.653	1441.6
192.0	195.18	-1.766	26.297	33.092	26.656	1441.6
193.0	196.21	-1.766	26.295	33.088	26.653	1441.6
194.0	197.23	-1.764	26.298	33.090	26.654	1441.6
195.0	198.24	-1.762	26.299	33.080	26.653	1441.7
196.0	199.26	-1.762	26.301	33.091	26.655	1441.7
197.0	200.27	-1.762	26.303	33.092	26.656	1441.7

EXPERIMENT 3027

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	201.27	-1.761	26.302	33.089	26.654	1441.7
199.0	202.32	-1.762	26.303	33.091	26.655	1441.7
200.0	203.31	-1.761	26.305	33.092	26.656	1441.7
201.0	204.30	-1.760	26.306	33.091	26.656	1441.8
202.0	205.35	-1.759	26.307	33.091	26.655	1441.8
203.0	206.36	-1.757	26.310	33.093	26.657	1441.8
204.0	207.36	-1.757	26.311	33.093	26.657	1441.8
205.0	208.38	-1.756	26.313	33.096	26.659	1441.9
206.0	209.41	-1.756	26.313	33.094	26.658	1441.9
207.0	210.42	-1.755	26.313	33.093	26.657	1441.9
208.0	211.44	-1.755	26.314	33.094	26.657	1441.9
209.0	212.48	-1.755	26.314	33.093	26.657	1441.9
210.0	213.47	-1.755	26.315	33.094	26.658	1441.9
211.0	214.48	-1.755	26.316	33.095	26.658	1442.0
212.0	215.50	-1.755	26.317	33.094	26.658	1442.0
213.0	216.51	-1.753	26.320	33.097	26.660	1442.0
214.0	217.54	-1.754	26.321	33.099	26.661	1442.0
215.0	218.57	-1.753	26.320	33.095	26.658	1442.0
216.0	219.58	-1.753	26.321	33.096	26.659	1442.1
217.0	220.60	-1.753	26.321	33.095	26.658	1442.1
218.0	221.62	-1.753	26.322	33.096	26.659	1442.1
219.0	222.64	-1.753	26.321	33.094	26.658	1442.1
220.0	223.62	-1.753	26.323	33.095	26.658	1442.1
221.0	224.62	-1.753	26.322	33.095	26.658	1442.1
222.0	225.67	-1.753	26.324	33.096	26.659	1442.2
223.0	226.65	-1.753	26.324	33.096	26.659	1442.2
224.0	227.71	-1.752	26.325	33.095	26.658	1442.2
225.0	228.72	-1.750	26.327	33.096	26.659	1442.2
226.0	229.75	-1.750	26.328	33.096	26.659	1442.2
227.0	230.76	-1.749	26.329	33.096	26.659	1442.3
228.0	231.80	-1.750	26.328	33.096	26.659	1442.3
229.0	232.78	-1.751	26.329	33.096	26.659	1442.3
230.0	233.77	-1.748	26.331	33.096	26.659	1442.3
231.0	234.77	-1.747	26.332	33.096	26.659	1442.3
232.0	235.80	-1.747	26.335	33.099	26.661	1442.4
233.0	236.82	-1.746	26.337	33.101	26.663	1442.4
234.0	237.86	-1.746	26.338	33.100	26.662	1442.4
235.0	238.91	-1.746	26.336	33.097	26.660	1442.4
236.0	239.90	-1.745	26.339	33.101	26.663	1442.4
237.0	240.94	-1.745	26.338	33.098	26.660	1442.4
238.0	241.93	-1.745	26.340	33.100	26.662	1442.5
239.0	242.96	-1.745	26.339	33.098	26.661	1442.5
240.0	243.95	-1.745	26.340	33.099	26.661	1442.5
241.0	244.99	-1.744	26.342	33.101	26.663	1442.5
242.0	245.99	-1.742	26.345	33.101	26.663	1442.6
243.0	247.00	-1.741	26.345	33.100	26.662	1442.6
244.0	248.01	-1.741	26.344	33.099	26.661	1442.6
245.0	249.04	-1.741	26.347	33.102	26.664	1442.6
246.0	250.03	-1.740	26.348	33.101	26.663	1442.6
247.0	251.10	-1.739	26.348	33.100	26.662	1442.6
248.0	252.07	-1.740	26.349	33.101	26.663	1442.7
249.0	253.09	-1.739	26.352	33.103	26.665	1442.7
250.0	254.10	-1.739	26.351	33.102	26.663	1442.7
251.0	255.12	-1.736	26.353	33.101	26.662	1442.7
252.0	256.10	-1.732	26.359	33.105	26.666	1442.8
253.0	257.11	-1.732	26.360	33.104	26.665	1442.8
254.0	258.14	-1.732	26.361	33.105	26.666	1442.8
255.0	259.15	-1.732	26.360	33.104	26.665	1442.8
256.0	260.14	-1.729	26.364	33.105	26.666	1442.8
257.0	261.17	-1.729	26.365	33.105	26.666	1442.9
258.0	262.22	-1.727	26.367	33.105	26.666	1442.9
259.0	263.22	-1.728	26.368	33.107	26.667	1442.9
260.0	264.26	-1.725	26.368	33.103	26.665	1442.9
261.0	265.28	-1.717	26.377	33.107	26.668	1443.0
262.0	266.30	-1.702	26.394	33.114	26.672	1443.1
263.0	267.30	-1.694	26.402	33.115	26.674	1443.1
264.0	268.31	-1.689	26.409	33.117	26.675	1443.2

EXPERIMENT 3027

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	269.31	-1.687	26.414	33.123	26.679	1443.2
266.0	270.31	-1.687	26.411	33.118	26.676	1443.2
267.0	271.35	-1.686	26.412	33.117	26.675	1443.3
268.0	272.36	-1.684	26.415	33.119	26.677	1443.3
269.0	273.34	-1.684	26.415	33.118	26.675	1443.3

EXPERIMENT 3030

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY ‰

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M



+ = INSITU FREEZING POINT

CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(5)B EXPERIMENT 3030
 LAT.N. 75-29-58 LONG.W. 97-05-05 DATE 070477 G.M.T. 2000
 U.T.M. ZONE 14 8379956 N 553636 E DEPTH INCR 1.00 WATER DEPTH 317 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	1.95	-1.810				
3.0	3.05	-1.810				
4.0	3.98	-1.810				
5.0	5.06	-1.810				
6.0	6.06	-1.811				
7.0	7.04	-1.810				
8.0	8.09	-1.810				
9.0	9.10	-1.810				
10.0	10.08	-1.810				
11.0	11.13	-1.809				
12.0	12.13	-1.810				
13.0	13.11	-1.809				
14.0	14.16	-1.810				
15.0	15.18	-1.810				
16.0	16.17	-1.809				
17.0	17.19	-1.809				
18.0	18.22	-1.810				
19.0	19.21	-1.810				
20.0	20.22	-1.809				
21.0	21.28	-1.809				
22.0	22.25	-1.809				
23.0	23.25	-1.809				
24.0	24.31	-1.809				
25.0	25.31	-1.809				
26.0	26.27	-1.809				
27.0	27.34	-1.809				
28.0	28.36	-1.809				
29.0	29.35	-1.809				
30.0	30.32	-1.809				
31.0	31.39	-1.809				
32.0	32.37	-1.809				
33.0	33.40	-1.808				
34.0	34.42	-1.807				
35.0	35.40	-1.807				
36.0	36.45	-1.806				
37.0	37.41	-1.806				
38.0	38.46	-1.805				
39.0	39.49	-1.805				
40.0	40.46	-1.805				
41.0	41.51	-1.804				
42.0	42.50	-1.803				
43.0	43.51	-1.803				
44.0	44.54	-1.803				
45.0	45.53	-1.802				
46.0	46.57	-1.801				
47.0	47.57	-1.801				
48.0	48.57	-1.800				
49.0	49.61	-1.799				
50.0	50.61	-1.799				
51.0	51.59	-1.799				
52.0	52.65	-1.798				
53.0	53.64	-1.798				
54.0	54.65	-1.798				
55.0	55.71	-1.798				
56.0	56.68	-1.798				
57.0	57.69	-1.797				
58.0	58.74	-1.797				
59.0	59.71	-1.797				
60.0	60.74	-1.797				
61.0	61.80	-1.797				
62.0	62.77	-1.797				
63.0	63.80	-1.797				

EXPERIMENT 3030

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	64.85	-1.797				
65.0	65.82	-1.796				
66.0	66.82	-1.796				
67.0	67.87	-1.796				
68.0	68.85	-1.796				
69.0	69.85	-1.796				
70.0	70.89	-1.796				
71.0	71.92	-1.796				
72.0	72.87	-1.796				
73.0	73.92	-1.795				
74.0	74.95	-1.795				
75.0	75.95	-1.795				
76.0	76.94	-1.795				
77.0	77.99	-1.795				
78.0	79.01	-1.795				
79.0	79.98	-1.794				
80.0	81.01	-1.794				
81.0	82.04	-1.794				
82.0	83.04	-1.794				
83.0	84.02	-1.794				
84.0	85.09	-1.793				
85.0	86.10	-1.789				
86.0	87.08	-1.789				
87.0	88.09	-1.789				
88.0	89.15	-1.789				
89.0	90.15	-1.789				
90.0	91.13	-1.788				
91.0	92.13	-1.788				
92.0	93.20	-1.788				
93.0	94.20	-1.787				
94.0	95.19	-1.787				
95.0	96.19	-1.786				
96.0	97.25	-1.786				
97.0	98.27	-1.786				
98.0	99.25	-1.784				
99.0	100.25	-1.784				
100.0	101.26	-1.783				
101.0	102.31	-1.782				
102.0	103.29	-1.782				
103.0	104.31	-1.782				
104.0	105.35	-1.782				
105.0	106.32	-1.781				
106.0	107.34	-1.780				
107.0	108.38	-1.780				
108.0	109.37	-1.778				
109.0	110.37	-1.777				
110.0	111.42	-1.775				
111.0	112.43	-1.774				
112.0	113.41	-1.774				
113.0	114.46	-1.773				
114.0	115.47	-1.773				
115.0	116.45	-1.773				
116.0	117.51	-1.773				
117.0	118.51	-1.773				
118.0	119.51	-1.772				
119.0	120.50	-1.771				
120.0	121.57	-1.770				
121.0	122.57	-1.770				
122.0	123.54	-1.770				
123.0	124.62	-1.770				
124.0	125.62	-1.770				
125.0	126.59	-1.770				
126.0	127.61	-1.769				
127.0	128.65	-1.769				
128.0	129.66	-1.768				
129.0	130.65	-1.768				
130.0	131.68	-1.768				

EXPERIMENT 3030

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	132.71	-1.767				
132.0	133.70	-1.767				
133.0	134.69	-1.767				
134.0	135.75	-1.767				
135.0	136.78	-1.767				
136.0	137.74	-1.766				
137.0	138.75	-1.766				
138.0	139.80	-1.766				
139.0	140.83	-1.766				
140.0	141.81	-1.766				
141.0	142.79	-1.766				
142.0	143.85	-1.766				
143.0	144.87	-1.766				
144.0	145.87	-1.766				
145.0	146.86	-1.766				
146.0	147.89	-1.766				
147.0	148.93	-1.766				
148.0	149.92	-1.766				
149.0	150.92	-1.765				
150.0	151.92	-1.765				
151.0	152.96	-1.765				
152.0	154.00	-1.764				
153.0	154.99	-1.764				
154.0	155.97	-1.763				
155.0	157.00	-1.763				
156.0	158.05	-1.763				
157.0	159.06	-1.763				
158.0	160.04	-1.763				
159.0	161.04	-1.763				
160.0	162.05	-1.763				
161.0	163.11	-1.762				
162.0	164.14	-1.762				
163.0	165.14	-1.763				
164.0	166.11	-1.763				
165.0	167.12	-1.763				
166.0	168.18	-1.763				
167.0	169.17	-1.763				
168.0	170.23	-1.763				
169.0	171.20	-1.762				
170.0	172.18	-1.762				
171.0	173.20	-1.762				
172.0	174.24	-1.762				
173.0	175.25	-1.761				
174.0	176.24	-1.762				
175.0	177.29	-1.761				
176.0	178.31	-1.761				
177.0	179.30	-1.762				
178.0	180.30	-1.762				
179.0	181.33	-1.762				
180.0	182.35	-1.762				
181.0	183.33	-1.762				
182.0	184.36	-1.762				
183.0	185.39	-1.762				
184.0	186.41	-1.762				
185.0	187.40	-1.762				
186.0	188.42	-1.762				
187.0	189.48	-1.762				
188.0	190.45	-1.760				
189.0	191.45	-1.760				
190.0	192.48	-1.759				
191.0	193.50	-1.759				
192.0	194.51	-1.759				
193.0	195.51	-1.759				
194.0	196.52	-1.758				
195.0	197.57	-1.758				
196.0	198.57	-1.756				
197.0	199.58	-1.751				

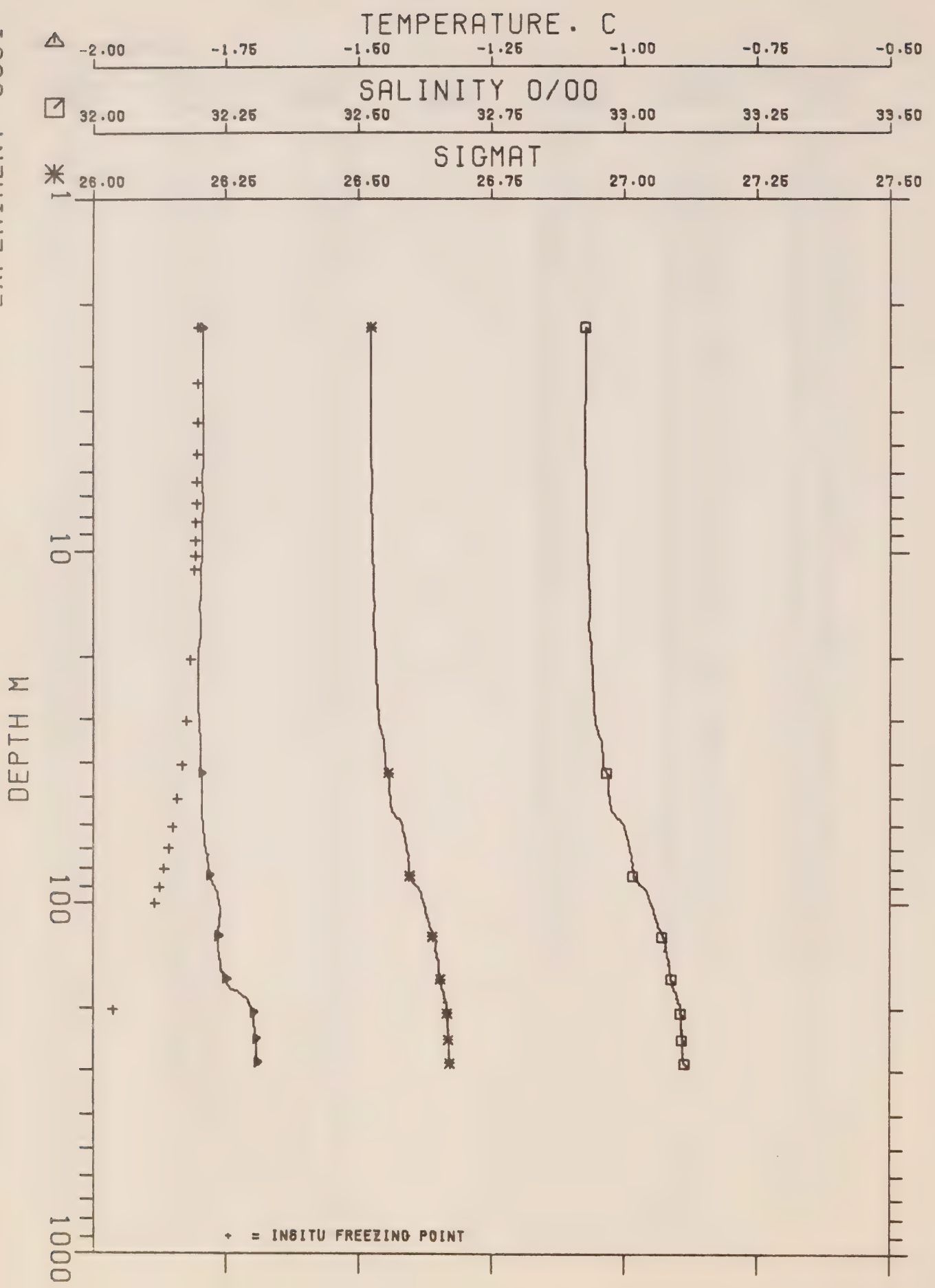
EXPERIMENT 3030

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	200.56	-1.750				
199.0	201.62	-1.750				
200.0	202.64	-1.750				
201.0	203.63	-1.750				
202.0	204.62	-1.750				
203.0	205.65	-1.750				
204.0	206.67	-1.750				
205.0	207.70	-1.750				
206.0	208.71	-1.750				
207.0	209.69	-1.750				
208.0	210.70	-1.749				
209.0	211.76	-1.748				
210.0	212.77	-1.745				
211.0	213.77	-1.746				
212.0	214.76	-1.743				
213.0	215.77	-1.742				
214.0	216.80	-1.741				
215.0	217.85	-1.741				
216.0	218.86	-1.740				
217.0	219.84	-1.741				
218.0	220.83	-1.741				
219.0	221.85	-1.740				
220.0	222.92	-1.740				
221.0	223.93	-1.740				
222.0	224.92	-1.740				
223.0	225.91	-1.740				
224.0	226.92	-1.739				
225.0	227.93	-1.739				
226.0	228.98	-1.739				
227.0	229.98	-1.739				
228.0	231.01	-1.739				
229.0	232.02	-1.739				
230.0	233.03	-1.739				
231.0	234.01	-1.739				
232.0	235.03	-1.739				
233.0	236.07	-1.739				
234.0	237.10	-1.739				
235.0	238.12	-1.740				
236.0	239.12	-1.740				
237.0	240.11	-1.740				
238.0	241.10	-1.740				
239.0	242.14	-1.740				
240.0	243.18	-1.740				
241.0	244.17	-1.739				
242.0	245.16	-1.739				
243.0	246.18	-1.739				
244.0	247.22	-1.739				
245.0	248.24	-1.739				
246.0	249.21	-1.740				
247.0	250.24	-1.740				
248.0	251.27	-1.740				
249.0	252.30	-1.740				
250.0	253.28	-1.738				
251.0	254.28	-1.737				
252.0	255.32	-1.738				
253.0	256.35	-1.738				
254.0	257.35	-1.736				
255.0	258.32	-1.734				
256.0	259.36	-1.733				
257.0	260.40	-1.733				
258.0	261.40	-1.732				
259.0	262.40	-1.729				
260.0	263.40	-1.729				
261.0	264.44	-1.728				
262.0	265.47	-1.729				
263.0	266.47	-1.729				
264.0	267.46	-1.728				

EXPERIMENT 3030

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.47	-1.728				
266.0	269.52	-1.729				
267.0	270.54	-1.729				
268.0	271.55	-1.728				
269.0	272.54	-1.728				
270.0	273.54	-1.728				
271.0	274.57	-1.728				
272.0	275.60	-1.728				
273.0	276.61	-1.728				
274.0	277.62	-1.727				
275.0	278.60	-1.728				
276.0	279.62	-1.728				
277.0	280.67	-1.728				
278.0	281.69	-1.728				
279.0	282.71	-1.728				
280.0	283.69	-1.728				
281.0	284.69	-1.729				
282.0	285.70	-1.729				
283.0	286.75	-1.728				
284.0	287.76	-1.729				
285.0	288.81	-1.728				
286.0	289.79	-1.729				
287.0	290.78	-1.728				
288.0	291.80	-1.728				
289.0	292.80	-1.728				
290.0	293.85	-1.727				
291.0	294.87	-1.728				
292.0	295.88	-1.727				
293.0	296.89	-1.727				
294.0	297.89	-1.728				
295.0	298.89	-1.727				
296.0	299.90	-1.725				
297.0	300.94	-1.724				
298.0	301.98	-1.722				
299.0	302.99	-1.722				
300.0	304.01	-1.722				
301.0	305.01	-1.722				
302.0	306.02	-1.722				
303.0	307.00	-1.721				
304.0	308.01	-1.722				
305.0	309.05	-1.722				
306.0	310.10	-1.721				
307.0	311.07	-1.722				
308.0	312.06	-1.721				
309.0	313.10	-1.720				
310.0	314.15	-1.719				
311.0	315.10	-1.719				
312.0	316.12	-1.717				
313.0	317.10	-1.716				
314.0	318.05	-1.712				
315.0	318.92	-1.714				

EXPERIMENT 3031



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(4)B EXPERIMENT 3031
 LAT.N. 75-30-16 LONG.W. 97-08-01 DATE 070477 G.M.T. 2300
 U.T.M. ZONE 14 8380531 N 552114 E DEPTH INCR 1.00 WATER DEPTH 286 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.33	-1.793	26.075	32.927	26.523	1438.1
3.0	3.36	-1.793	26.076	32.927	26.523	1438.1
4.0	4.34	-1.793	26.075	32.926	26.522	1438.1
5.0	5.32	-1.793	26.076	32.926	26.522	1438.1
6.0	6.40	-1.794	26.077	32.928	26.524	1438.1
7.0	7.37	-1.794	26.077	32.928	26.524	1438.1
8.0	8.32	-1.794	26.078	32.928	26.524	1438.2
9.0	9.39	-1.795	26.079	32.930	26.525	1438.2
10.0	10.34	-1.794	26.079	32.929	26.524	1438.2
11.0	11.36	-1.796	26.080	32.932	26.527	1438.2
12.0	12.37	-1.797	26.080	32.933	26.528	1438.2
13.0	13.34	-1.798	26.081	32.934	26.529	1438.2
14.0	14.42	-1.799	26.081	32.935	26.530	1438.2
15.0	15.30	-1.798	26.082	32.934	26.529	1438.3
16.0	16.31	-1.797	26.082	32.934	26.528	1438.3
17.0	17.37	-1.798	26.083	32.934	26.529	1438.3
18.0	18.34	-1.801	26.083	32.937	26.531	1438.3
19.0	19.34	-1.802	26.083	32.938	26.532	1438.3
20.0	20.40	-1.802	26.083	32.938	26.532	1438.3
21.0	21.36	-1.803	26.084	32.939	26.533	1438.3
22.0	22.37	-1.803	26.084	32.939	26.533	1438.4
23.0	23.42	-1.803	26.085	32.940	26.533	1438.4
24.0	24.48	-1.802	26.087	32.941	26.534	1438.4
25.0	25.45	-1.801	26.089	32.942	26.535	1438.4
26.0	26.49	-1.801	26.090	32.942	26.536	1438.4
27.0	27.49	-1.801	26.091	32.943	26.536	1438.5
28.0	28.48	-1.801	26.091	32.943	26.536	1438.5
29.0	29.53	-1.801	26.093	32.945	26.537	1438.5
30.0	30.52	-1.800	26.095	32.946	26.538	1438.5
31.0	31.49	-1.800	26.096	32.947	26.539	1438.5
32.0	32.55	-1.799	26.100	32.950	26.542	1438.6
33.0	33.57	-1.798	26.103	32.954	26.545	1438.6
34.0	34.57	-1.797	26.107	32.957	26.547	1438.6
35.0	35.60	-1.797	26.108	32.958	26.548	1438.6
36.0	36.62	-1.797	26.109	32.958	26.548	1438.7
37.0	37.59	-1.797	26.110	32.959	26.549	1438.7
38.0	38.64	-1.797	26.111	32.960	26.550	1438.7
39.0	39.61	-1.797	26.112	32.960	26.550	1438.7
40.0	40.68	-1.797	26.113	32.961	26.550	1438.7
41.0	41.64	-1.796	26.115	32.963	26.552	1438.7
42.0	42.69	-1.796	26.119	32.967	26.556	1438.8
43.0	43.68	-1.796	26.120	32.969	26.557	1438.8
44.0	44.72	-1.796	26.121	32.969	26.557	1438.8
45.0	45.74	-1.796	26.121	32.969	26.557	1438.8
46.0	46.72	-1.796	26.123	32.970	26.558	1438.8
47.0	47.78	-1.796	26.124	32.971	26.558	1438.9
48.0	48.75	-1.796	26.124	32.971	26.559	1438.9
49.0	49.78	-1.796	26.125	32.972	26.559	1438.9
50.0	50.79	-1.796	26.126	32.972	26.559	1438.9
51.0	51.78	-1.795	26.127	32.973	26.560	1438.9
52.0	52.85	-1.795	26.128	32.974	26.561	1438.9
53.0	53.81	-1.795	26.130	32.976	26.563	1439.0
54.0	54.87	-1.795	26.132	32.977	26.563	1439.0
55.0	55.86	-1.795	26.136	32.983	26.568	1439.0
56.0	56.88	-1.795	26.139	32.986	26.570	1439.0
57.0	57.95	-1.794	26.146	32.993	26.577	1439.1
58.0	58.91	-1.794	26.148	32.996	26.579	1439.1
59.0	59.99	-1.793	26.152	32.999	26.582	1439.1
60.0	60.95	-1.793	26.152	33.000	26.582	1439.1
61.0	61.93	-1.792	26.155	33.002	26.583	1439.2
62.0	63.00	-1.792	26.156	33.003	26.585	1439.2
63.0	63.97	-1.791	26.158	33.004	26.585	1439.2

EXPERIMENT 3031

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	65.00	-1.790	26.160	33.006	26.587	1439.2
65.0	66.03	-1.790	26.162	33.007	26.588	1439.2
66.0	66.99	-1.790	26.163	33.008	26.588	1439.3
67.0	68.07	-1.789	26.165	33.008	26.589	1439.3
68.0	69.04	-1.789	26.166	33.009	26.589	1439.3
69.0	70.06	-1.789	26.166	33.009	26.589	1439.3
70.0	71.11	-1.787	26.169	33.011	26.591	1439.3
71.0	72.07	-1.787	26.171	33.012	26.592	1439.4
72.0	73.12	-1.784	26.176	33.015	26.594	1439.4
73.0	74.15	-1.784	26.176	33.015	26.594	1439.4
74.0	75.11	-1.785	26.174	33.014	26.593	1439.4
75.0	76.18	-1.785	26.176	33.015	26.594	1439.4
76.0	77.20	-1.782	26.180	33.017	26.595	1439.5
77.0	78.16	-1.783	26.179	33.016	26.595	1439.5
78.0	79.21	-1.782	26.181	33.016	26.595	1439.5
79.0	80.22	-1.782	26.182	33.018	26.596	1439.5
80.0	81.19	-1.781	26.183	33.017	26.595	1439.5
81.0	82.25	-1.781	26.183	33.016	26.595	1439.6
82.0	83.27	-1.782	26.183	33.017	26.596	1439.6
83.0	84.24	-1.780	26.185	33.017	26.596	1439.6
84.0	85.29	-1.779	26.188	33.020	26.598	1439.6
85.0	86.30	-1.778	26.191	33.022	26.600	1439.6
86.0	87.29	-1.775	26.197	33.026	26.603	1439.7
87.0	88.32	-1.775	26.198	33.028	26.604	1439.7
88.0	89.34	-1.773	26.204	33.032	26.608	1439.7
89.0	90.35	-1.769	26.211	33.038	26.613	1439.8
90.0	91.35	-1.769	26.213	33.039	26.614	1439.8
91.0	92.39	-1.768	26.216	33.042	26.615	1439.8
92.0	93.40	-1.766	26.219	33.043	26.616	1439.9
93.0	94.37	-1.765	26.221	33.045	26.618	1439.9
94.0	95.45	-1.765	26.222	33.045	26.618	1439.9
95.0	96.46	-1.765	26.223	33.045	26.618	1439.9
96.0	97.44	-1.764	26.224	33.046	26.619	1439.9
97.0	98.45	-1.763	26.227	33.048	26.621	1440.0
98.0	99.50	-1.762	26.229	33.049	26.621	1440.0
99.0	100.50	-1.762	26.230	33.050	26.622	1440.0
100.0	101.49	-1.761	26.232	33.052	26.623	1440.0
101.0	102.53	-1.761	26.234	33.053	26.625	1440.0
102.0	103.58	-1.761	26.235	33.054	26.625	1440.1
103.0	104.58	-1.761	26.235	33.054	26.625	1440.1
104.0	105.57	-1.761	26.236	33.054	26.626	1440.1
105.0	106.61	-1.761	26.237	33.055	26.626	1440.1
106.0	107.63	-1.761	26.238	33.057	26.627	1440.1
107.0	108.60	-1.761	26.239	33.057	26.628	1440.1
108.0	109.65	-1.761	26.240	33.058	26.628	1440.2
109.0	110.65	-1.762	26.241	33.059	26.629	1440.2
110.0	111.63	-1.762	26.242	33.061	26.631	1440.2
111.0	112.72	-1.762	26.243	33.061	26.631	1440.2
112.0	113.68	-1.763	26.244	33.062	26.632	1440.2
113.0	114.70	-1.763	26.244	33.063	26.632	1440.2
114.0	115.74	-1.763	26.245	33.063	26.633	1440.3
115.0	116.73	-1.763	26.246	33.064	26.633	1440.3
116.0	117.75	-1.764	26.247	33.066	26.635	1440.3
117.0	118.79	-1.765	26.248	33.067	26.636	1440.3
118.0	119.75	-1.765	26.249	33.069	26.637	1440.3
119.0	120.79	-1.766	26.250	33.070	26.638	1440.3
120.0	121.81	-1.766	26.250	33.070	26.638	1440.4
121.0	122.79	-1.765	26.253	33.072	26.640	1440.4
122.0	123.85	-1.765	26.254	33.072	26.640	1440.4
123.0	124.83	-1.764	26.255	33.073	26.641	1440.4
124.0	125.85	-1.764	26.256	33.074	26.641	1440.4
125.0	126.90	-1.764	26.259	33.077	26.644	1440.5
126.0	127.89	-1.764	26.260	33.077	26.644	1440.5
127.0	128.89	-1.764	26.261	33.078	26.645	1440.5
128.0	129.95	-1.764	26.261	33.079	26.645	1440.5
129.0	130.92	-1.765	26.261	33.079	26.645	1440.5
130.0	131.93	-1.764	26.262	33.078	26.645	1440.5

EXPERIMENT 3031

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	132.97	-1.764	26.263	33.079	26.645	1440.6
132.0	133.96	-1.764	26.263	33.079	26.645	1440.6
133.0	134.96	-1.764	26.264	33.079	26.645	1440.6
134.0	136.03	-1.764	26.262	33.075	26.643	1440.6
135.0	137.04	-1.764	26.265	33.079	26.646	1440.6
136.0	138.00	-1.764	26.266	33.080	26.646	1440.6
137.0	139.04	-1.763	26.267	33.080	26.646	1440.7
138.0	140.08	-1.762	26.269	33.081	26.647	1440.7
139.0	141.07	-1.762	26.270	33.081	26.647	1440.7
140.0	142.09	-1.762	26.269	33.079	26.646	1440.7
141.0	143.11	-1.762	26.272	33.083	26.649	1440.7
142.0	144.11	-1.762	26.272	33.082	26.648	1440.8
143.0	145.11	-1.761	26.274	33.083	26.649	1440.8
144.0	146.14	-1.761	26.275	33.084	26.650	1440.8
145.0	147.18	-1.761	26.275	33.084	26.649	1440.8
146.0	148.15	-1.760	26.276	33.083	26.649	1440.8
147.0	149.17	-1.759	26.277	33.083	26.649	1440.9
148.0	150.20	-1.759	26.279	33.085	26.650	1440.9
149.0	151.23	-1.760	26.279	33.085	26.650	1440.9
150.0	152.20	-1.760	26.279	33.085	26.650	1440.9
151.0	153.23	-1.759	26.280	33.085	26.650	1440.9
152.0	154.27	-1.759	26.280	33.084	26.650	1440.9
153.0	155.29	-1.759	26.281	33.085	26.650	1441.0
154.0	156.27	-1.759	26.282	33.085	26.651	1441.0
155.0	157.29	-1.756	26.284	33.085	26.650	1441.0
156.0	158.31	-1.752	26.289	33.087	26.652	1441.0
157.0	159.34	-1.753	26.289	33.088	26.652	1441.1
158.0	160.33	-1.752	26.290	33.087	26.652	1441.1
159.0	161.35	-1.752	26.290	33.087	26.652	1441.1
160.0	162.36	-1.754	26.289	33.087	26.652	1441.1
161.0	163.39	-1.750	26.294	33.088	26.653	1441.1
162.0	164.40	-1.750	26.295	33.088	26.653	1441.2
163.0	165.39	-1.748	26.297	33.090	26.654	1441.2
164.0	166.44	-1.747	26.298	33.089	26.654	1441.2
165.0	167.46	-1.747	26.300	33.090	26.654	1441.2
166.0	168.44	-1.746	26.301	33.091	26.655	1441.2
167.0	169.46	-1.747	26.301	33.090	26.654	1441.3
168.0	170.47	-1.747	26.301	33.090	26.654	1441.3
169.0	171.50	-1.746	26.302	33.091	26.655	1441.3
170.0	172.52	-1.745	26.304	33.091	26.655	1441.3
171.0	173.50	-1.742	26.307	33.091	26.655	1441.3
172.0	174.52	-1.743	26.307	33.092	26.656	1441.4
173.0	175.56	-1.740	26.310	33.093	26.657	1441.4
174.0	176.53	-1.738	26.313	33.094	26.657	1441.4
175.0	177.58	-1.729	26.323	33.096	26.659	1441.5
176.0	178.57	-1.727	26.326	33.097	26.660	1441.5
177.0	179.59	-1.725	26.328	33.097	26.659	1441.5
178.0	180.63	-1.724	26.329	33.098	26.660	1441.6
179.0	181.63	-1.723	26.331	33.099	26.661	1441.6
180.0	182.62	-1.719	26.334	33.099	26.661	1441.6
181.0	183.68	-1.718	26.337	33.100	26.662	1441.6
182.0	184.67	-1.717	26.338	33.101	26.662	1441.7
183.0	185.68	-1.713	26.340	33.098	26.660	1441.7
184.0	186.72	-1.711	26.345	33.102	26.663	1441.7
185.0	187.70	-1.710	26.347	33.103	26.664	1441.7
186.0	188.72	-1.708	26.349	33.103	26.664	1441.8
187.0	189.77	-1.708	26.350	33.104	26.664	1441.8
188.0	190.76	-1.707	26.348	33.100	26.661	1441.8
189.0	191.74	-1.706	26.352	33.103	26.664	1441.8
190.0	192.79	-1.706	26.353	33.104	26.665	1441.9
191.0	193.82	-1.705	26.354	33.104	26.665	1441.9
192.0	194.79	-1.705	26.355	33.104	26.665	1441.9
193.0	195.83	-1.704	26.356	33.104	26.665	1441.9
194.0	196.86	-1.703	26.358	33.105	26.665	1441.9
195.0	197.84	-1.703	26.358	33.105	26.665	1441.9
196.0	198.85	-1.702	26.360	33.105	26.665	1442.0
197.0	199.90	-1.701	26.362	33.106	26.666	1442.0

EXPERIMENT 3031

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	200.92	-1.701	26.363	33.106	26.666	1442.0
199.0	201.89	-1.700	26.364	33.107	26.667	1442.0
200.0	202.92	-1.699	26.365	33.107	26.667	1442.1
201.0	203.96	-1.699	26.365	33.106	26.666	1442.1
202.0	204.95	-1.699	26.365	33.105	26.666	1442.1
203.0	205.96	-1.698	26.367	33.107	26.667	1442.1
204.0	206.99	-1.698	26.368	33.107	26.667	1442.1
205.0	208.03	-1.698	26.368	33.107	26.667	1442.1
206.0	209.00	-1.698	26.369	33.107	26.667	1442.2
207.0	210.00	-1.698	26.369	33.107	26.667	1442.2
208.0	211.07	-1.698	26.369	33.107	26.667	1442.2
209.0	212.06	-1.699	26.369	33.107	26.667	1442.2
210.0	213.05	-1.698	26.371	33.108	26.668	1442.2
211.0	214.06	-1.698	26.371	33.107	26.667	1442.2
212.0	215.12	-1.699	26.371	33.108	26.668	1442.3
213.0	216.12	-1.698	26.372	33.108	26.667	1442.3
214.0	217.11	-1.698	26.372	33.108	26.667	1442.3
215.0	218.12	-1.698	26.373	33.108	26.667	1442.3
216.0	219.17	-1.698	26.374	33.108	26.667	1442.3
217.0	220.19	-1.697	26.375	33.108	26.668	1442.3
218.0	221.16	-1.697	26.375	33.108	26.668	1442.4
219.0	222.17	-1.698	26.375	33.108	26.668	1442.4
220.0	223.23	-1.697	26.376	33.108	26.668	1442.4
221.0	224.25	-1.697	26.376	33.108	26.668	1442.4
222.0	225.24	-1.698	26.376	33.108	26.668	1442.4
223.0	226.24	-1.696	26.378	33.108	26.668	1442.5
224.0	227.26	-1.696	26.379	33.108	26.668	1442.5
225.0	228.30	-1.695	26.381	33.109	26.669	1442.5
226.0	229.29	-1.694	26.382	33.109	26.669	1442.5
227.0	230.30	-1.695	26.381	33.109	26.668	1442.5
228.0	231.30	-1.696	26.381	33.109	26.668	1442.5
229.0	232.37	-1.695	26.382	33.109	26.669	1442.6
230.0	233.38	-1.695	26.382	33.108	26.667	1442.6
231.0	234.38	-1.695	26.384	33.110	26.669	1442.6
232.0	235.36	-1.694	26.385	33.109	26.669	1442.6
233.0	236.38	-1.694	26.385	33.110	26.669	1442.6
234.0	237.42	-1.694	26.386	33.109	26.669	1442.6
235.0	238.44	-1.694	26.386	33.110	26.669	1442.7
236.0	239.45	-1.694	26.386	33.110	26.669	1442.7
237.0	240.43	-1.694	26.387	33.110	26.669	1442.7
238.0	241.46	-1.694	26.387	33.110	26.669	1442.7
239.0	242.51	-1.694	26.388	33.110	26.669	1442.7
240.0	243.52	-1.694	26.389	33.110	26.669	1442.8
241.0	244.49	-1.694	26.389	33.110	26.669	1442.8
242.0	245.51	-1.694	26.390	33.110	26.669	1442.8
243.0	246.55	-1.694	26.390	33.110	26.669	1442.8
244.0	247.55	-1.694	26.391	33.110	26.669	1442.8
245.0	248.53	-1.694	26.391	33.111	26.670	1442.8
246.0	249.61	-1.694	26.391	33.110	26.669	1442.9
247.0	250.61	-1.694	26.392	33.110	26.669	1442.9
248.0	251.59	-1.694	26.392	33.110	26.669	1442.9
249.0	252.62	-1.693	26.393	33.110	26.669	1442.9
250.0	253.64	-1.693	26.394	33.110	26.669	1442.9
251.0	254.64	-1.694	26.394	33.110	26.670	1442.9
252.0	255.64	-1.693	26.395	33.110	26.669	1443.0
253.0	256.69	-1.692	26.396	33.111	26.670	1443.0
254.0	257.70	-1.693	26.396	33.111	26.670	1443.0
255.0	258.67	-1.693	26.396	33.111	26.670	1443.0
256.0	259.73	-1.692	26.397	33.111	26.670	1443.0
257.0	260.76	-1.693	26.397	33.111	26.670	1443.0
258.0	261.74	-1.693	26.398	33.111	26.670	1443.1
259.0	262.73	-1.692	26.399	33.111	26.670	1443.1
260.0	263.79	-1.692	26.399	33.111	26.670	1443.1
261.0	264.79	-1.692	26.400	33.111	26.670	1443.1
262.0	265.79	-1.693	26.400	33.111	26.670	1443.1
263.0	266.83	-1.692	26.401	33.111	26.670	1443.1
264.0	267.86	-1.692	26.401	33.111	26.670	1443.2

EXPERIMENT 3031

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.83	-1.692	26.402	33.111	26.670	1443.2
266.0	269.86	-1.692	26.402	33.111	26.670	1443.2
267.0	270.89	-1.693	26.402	33.111	26.670	1443.2
268.0	271.92	-1.692	26.403	33.111	26.670	1443.2
269.0	272.89	-1.692	26.403	33.111	26.670	1443.2
270.0	273.90	-1.692	26.404	33.111	26.670	1443.3
271.0	274.93	-1.692	26.405	33.111	26.670	1443.3
272.0	275.96	-1.692	26.405	33.112	26.670	1443.3
273.0	276.96	-1.692	26.405	33.112	26.670	1443.3
274.0	277.97	-1.692	26.406	33.111	26.670	1443.3
275.0	279.02	-1.692	26.407	33.112	26.670	1443.3
276.0	280.02	-1.691	26.407	33.112	26.671	1443.4
277.0	281.01	-1.692	26.408	33.112	26.671	1443.4
278.0	282.02	-1.692	26.408	33.111	26.670	1443.4
279.0	283.03	-1.692	26.409	33.112	26.671	1443.4
280.0	283.85	-1.692	26.410	33.113	26.671	1443.4

EXPERIMENT 3037

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

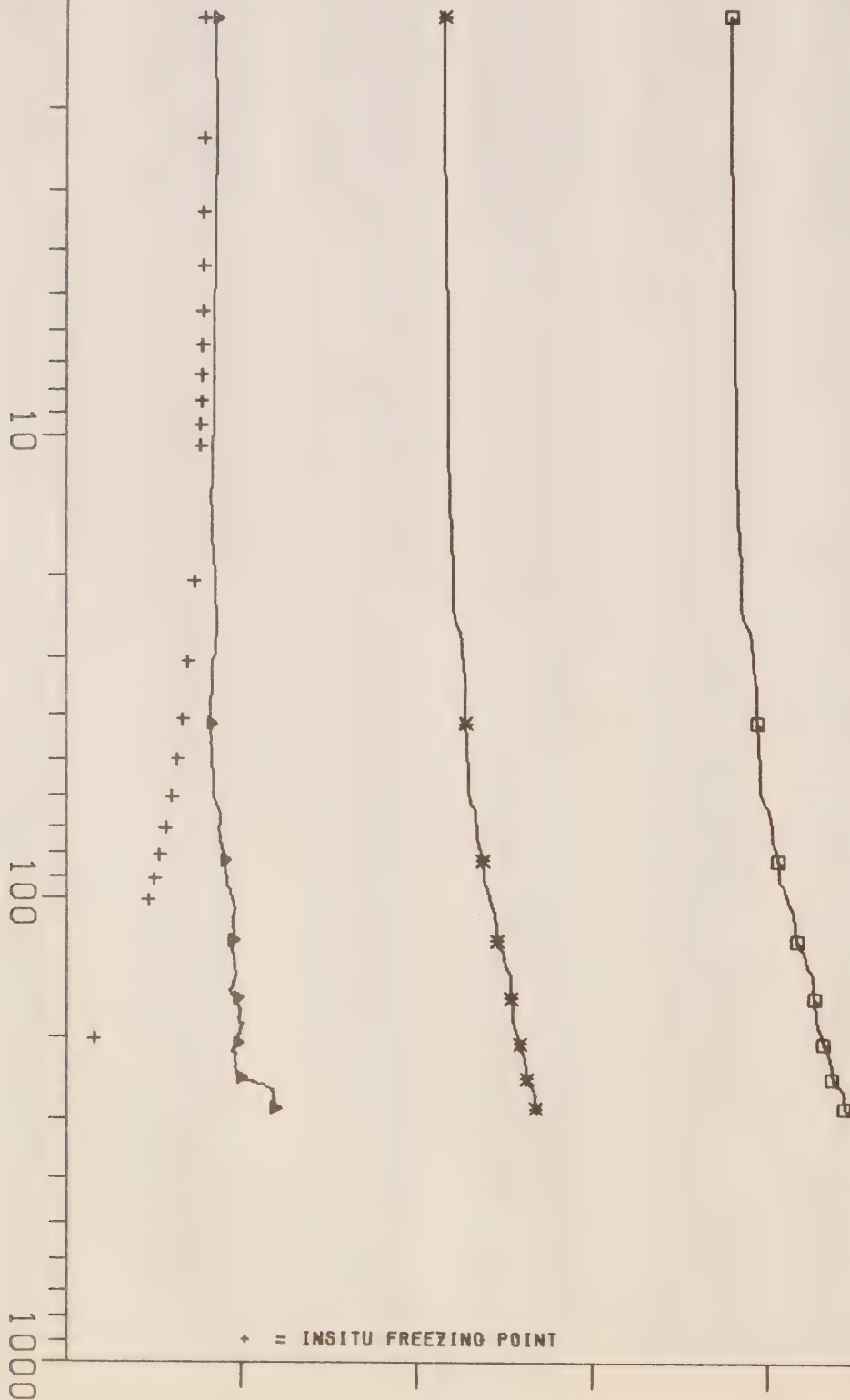
SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M



CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(4)B EXPERIMENT 3037
 LAT.N. 75-30-16 LONG.W. 97-08-01 DATE 100477 G.M.T. 2145
 U.T.M. ZONE 14 8380531 N 552114 E DEPTH INCR 1.00 WATER DEPTH 286 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	1.28	-1.786	26.093	32.945	26.538	1438.1
3.0	2.32	-1.786	26.094	32.946	26.538	1438.1
4.0	3.36	-1.787	26.095	32.947	26.539	1438.1
5.0	4.37	-1.787	26.095	32.947	26.539	1438.2
6.0	5.47	-1.789	26.096	32.950	26.541	1438.2
7.0	6.47	-1.790	26.096	32.950	26.542	1438.2
8.0	7.49	-1.790	26.096	32.951	26.542	1438.2
9.0	8.53	-1.791	26.097	32.951	26.543	1438.2
10.0	9.57	-1.791	26.097	32.952	26.543	1438.2
11.0	10.61	-1.791	26.098	32.952	26.543	1438.2
12.0	11.58	-1.792	26.098	32.952	26.543	1438.3
13.0	12.65	-1.793	26.098	32.953	26.544	1438.3
14.0	13.61	-1.794	26.098	32.954	26.545	1438.3
15.0	14.64	-1.794	26.100	32.956	26.546	1438.3
16.0	15.68	-1.794	26.101	32.956	26.547	1438.3
17.0	16.65	-1.793	26.104	32.958	26.548	1438.3
18.0	17.69	-1.791	26.105	32.958	26.548	1438.4
19.0	18.71	-1.789	26.108	32.959	26.549	1438.4
20.0	19.69	-1.789	26.109	32.959	26.549	1438.4
21.0	20.75	-1.788	26.111	32.960	26.549	1438.4
22.0	21.73	-1.788	26.111	32.960	26.549	1438.5
23.0	22.73	-1.787	26.112	32.960	26.550	1438.5
24.0	23.79	-1.785	26.114	32.961	26.550	1438.5
25.0	24.79	-1.784	26.117	32.963	26.552	1438.5
26.0	25.78	-1.784	26.121	32.967	26.555	1438.5
27.0	26.85	-1.786	26.125	32.974	26.561	1438.6
28.0	27.83	-1.787	26.125	32.975	26.562	1438.6
29.0	28.83	-1.788	26.125	32.976	26.562	1438.6
30.0	29.88	-1.789	26.126	32.977	26.563	1438.6
31.0	30.88	-1.792	26.125	32.978	26.565	1438.6
32.0	31.87	-1.793	26.125	32.979	26.565	1438.6
33.0	32.90	-1.793	26.126	32.980	26.566	1438.6
34.0	33.89	-1.793	26.127	32.981	26.567	1438.7
35.0	34.92	-1.793	26.128	32.981	26.567	1438.7
36.0	35.92	-1.794	26.128	32.982	26.567	1438.7
37.0	36.96	-1.794	26.129	32.982	26.567	1438.7
38.0	37.93	-1.794	26.129	32.982	26.568	1438.7
39.0	38.97	-1.794	26.130	32.982	26.568	1438.7
40.0	39.94	-1.794	26.130	32.983	26.568	1438.8
41.0	41.01	-1.794	26.131	32.983	26.568	1438.8
42.0	41.98	-1.794	26.131	32.983	26.569	1438.8
43.0	43.02	-1.793	26.132	32.983	26.568	1438.8
44.0	44.01	-1.794	26.133	32.984	26.569	1438.8
45.0	45.07	-1.793	26.134	32.984	26.569	1438.8
46.0	46.07	-1.794	26.135	32.985	26.570	1438.9
47.0	47.10	-1.793	26.135	32.985	26.570	1438.9
48.0	48.11	-1.793	26.137	32.986	26.570	1438.9
49.0	49.12	-1.793	26.138	32.986	26.571	1438.9
50.0	50.14	-1.792	26.139	32.987	26.571	1438.9
51.0	51.11	-1.792	26.140	32.987	26.572	1439.0
52.0	52.17	-1.791	26.141	32.987	26.572	1439.0
53.0	53.14	-1.791	26.142	32.988	26.572	1439.0
54.0	54.21	-1.790	26.144	32.989	26.573	1439.0
55.0	55.14	-1.790	26.144	32.988	26.573	1439.0
56.0	56.22	-1.790	26.144	32.989	26.573	1439.0
57.0	57.19	-1.790	26.145	32.988	26.573	1439.1
58.0	58.24	-1.790	26.146	32.989	26.573	1439.1
59.0	59.24	-1.790	26.146	32.989	26.573	1439.1
60.0	60.29	-1.789	26.149	32.990	26.574	1439.1
61.0	61.30	-1.787	26.152	32.992	26.575	1439.2
62.0	62.30	-1.786	26.154	32.993	26.576	1439.2
63.0	63.35	-1.784	26.158	32.996	26.579	1439.2

EXPERIMENT 3037

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	64.30	-1.782	26.163	33.000	26.582	1439.2
65.0	65.36	-1.780	26.165	33.001	26.583	1439.3
66.0	66.32	-1.779	26.167	33.001	26.583	1439.3
67.0	67.37	-1.779	26.167	33.001	26.583	1439.3
68.0	68.37	-1.780	26.168	33.002	26.584	1439.3
69.0	69.39	-1.781	26.168	33.004	26.585	1439.3
70.0	70.43	-1.781	26.169	33.005	26.586	1439.3
71.0	71.39	-1.781	26.169	33.005	26.586	1439.4
72.0	72.46	-1.781	26.170	33.005	26.586	1439.4
73.0	73.45	-1.780	26.172	33.005	26.586	1439.4
74.0	74.46	-1.780	26.172	33.005	26.586	1439.4
75.0	75.50	-1.780	26.173	33.006	26.586	1439.4
76.0	76.48	-1.778	26.175	33.006	26.587	1439.5
77.0	77.50	-1.778	26.176	33.007	26.588	1439.5
78.0	78.56	-1.777	26.179	33.009	26.589	1439.5
79.0	79.52	-1.775	26.183	33.011	26.591	1439.5
80.0	80.56	-1.773	26.186	33.012	26.592	1439.6
81.0	81.60	-1.772	26.187	33.013	26.592	1439.6
82.0	82.57	-1.773	26.188	33.014	26.593	1439.6
83.0	83.60	-1.772	26.189	33.015	26.594	1439.6
84.0	84.64	-1.772	26.190	33.015	26.594	1439.6
85.0	85.60	-1.772	26.190	33.015	26.594	1439.7
86.0	86.65	-1.772	26.191	33.015	26.594	1439.7
87.0	87.70	-1.772	26.191	33.015	26.594	1439.7
88.0	88.66	-1.773	26.191	33.015	26.594	1439.7
89.0	89.69	-1.771	26.193	33.015	26.594	1439.7
90.0	90.74	-1.771	26.195	33.016	26.595	1439.7
91.0	91.70	-1.770	26.195	33.016	26.595	1439.8
92.0	92.71	-1.771	26.196	33.017	26.595	1439.8
93.0	93.77	-1.769	26.199	33.019	26.597	1439.8
94.0	94.75	-1.767	26.204	33.022	26.600	1439.8
95.0	95.74	-1.765	26.206	33.023	26.600	1439.9
96.0	96.79	-1.764	26.207	33.024	26.601	1439.9
97.0	97.83	-1.764	26.209	33.025	26.602	1439.9
98.0	98.79	-1.762	26.211	33.026	26.602	1439.9
99.0	99.83	-1.762	26.213	33.026	26.603	1440.0
100.0	100.88	-1.761	26.214	33.027	26.604	1440.0
101.0	101.85	-1.761	26.215	33.028	26.604	1440.0
102.0	102.85	-1.760	26.218	33.029	26.605	1440.0
103.0	103.90	-1.759	26.220	33.030	26.606	1440.0
104.0	104.85	-1.758	26.222	33.033	26.608	1440.1
105.0	105.92	-1.760	26.222	33.033	26.609	1440.1
106.0	106.91	-1.760	26.223	33.034	26.609	1440.1
107.0	107.94	-1.761	26.223	33.034	26.609	1440.1
108.0	108.96	-1.762	26.223	33.036	26.610	1440.1
109.0	109.95	-1.762	26.224	33.036	26.611	1440.1
110.0	111.00	-1.763	26.224	33.036	26.611	1440.2
111.0	111.99	-1.763	26.224	33.036	26.611	1440.2
112.0	113.01	-1.762	26.226	33.037	26.611	1440.2
113.0	114.03	-1.762	26.227	33.038	26.612	1440.2
114.0	115.02	-1.761	26.228	33.038	26.612	1440.2
115.0	116.07	-1.761	26.228	33.038	26.612	1440.2
116.0	117.06	-1.761	26.229	33.038	26.612	1440.3
117.0	118.05	-1.761	26.230	33.038	26.613	1440.3
118.0	119.12	-1.762	26.230	33.039	26.613	1440.3
119.0	120.09	-1.762	26.231	33.039	26.613	1440.3
120.0	121.13	-1.761	26.231	33.039	26.613	1440.3
121.0	122.16	-1.762	26.232	33.040	26.614	1440.3
122.0	123.12	-1.762	26.233	33.040	26.614	1440.4
123.0	124.19	-1.762	26.234	33.041	26.614	1440.4
124.0	125.20	-1.762	26.234	33.040	26.614	1440.4
125.0	126.17	-1.762	26.235	33.041	26.615	1440.4
126.0	127.22	-1.763	26.235	33.043	26.616	1440.4
127.0	128.20	-1.765	26.235	33.044	26.618	1440.4
128.0	129.20	-1.763	26.240	33.049	26.621	1440.5
129.0	130.26	-1.763	26.241	33.049	26.621	1440.5
130.0	131.24	-1.761	26.244	33.050	26.622	1440.5

EXPERIMENT 3037

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
131.0	132.28	-1.761	26.246	33.051	26.623	1440.5
132.0	133.31	-1.760	26.247	33.052	26.624	1440.5
133.0	134.29	-1.759	26.248	33.052	26.624	1440.6
134.0	135.32	-1.760	26.248	33.052	26.624	1440.6
135.0	136.35	-1.760	26.249	33.052	26.624	1440.6
136.0	137.32	-1.759	26.250	33.053	26.625	1440.6
137.0	138.37	-1.759	26.252	33.055	26.626	1440.6
138.0	139.40	-1.759	26.252	33.055	26.626	1440.7
139.0	140.36	-1.759	26.253	33.054	26.626	1440.7
140.0	141.42	-1.759	26.254	33.056	26.627	1440.7
141.0	142.45	-1.759	26.255	33.057	26.628	1440.7
142.0	143.42	-1.758	26.258	33.059	26.629	1440.7
143.0	144.45	-1.758	26.259	33.060	26.630	1440.7
144.0	145.48	-1.757	26.261	33.062	26.631	1440.8
145.0	146.46	-1.759	26.261	33.062	26.632	1440.8
146.0	147.49	-1.759	26.261	33.063	26.632	1440.8
147.0	148.53	-1.760	26.261	33.063	26.633	1440.8
148.0	149.49	-1.761	26.262	33.063	26.633	1440.8
149.0	150.52	-1.761	26.262	33.063	26.633	1440.8
150.0	151.56	-1.761	26.262	33.064	26.633	1440.9
151.0	152.55	-1.763	26.262	33.064	26.633	1440.9
152.0	153.55	-1.762	26.263	33.064	26.634	1440.9
153.0	154.61	-1.762	26.263	33.064	26.634	1440.9
154.0	155.60	-1.764	26.262	33.064	26.633	1440.9
155.0	156.59	-1.765	26.261	33.063	26.633	1440.9
156.0	157.65	-1.767	26.261	33.064	26.634	1440.9
157.0	158.65	-1.766	26.262	33.064	26.633	1441.0
158.0	159.62	-1.764	26.263	33.064	26.633	1441.0
159.0	160.68	-1.763	26.265	33.064	26.633	1441.0
160.0	161.71	-1.765	26.265	33.065	26.634	1441.0
161.0	162.68	-1.758	26.270	33.064	26.633	1441.1
162.0	163.70	-1.757	26.272	33.065	26.634	1441.1
163.0	164.77	-1.757	26.273	33.066	26.635	1441.1
164.0	165.76	-1.755	26.274	33.065	26.634	1441.1
165.0	166.74	-1.755	26.275	33.065	26.634	1441.1
166.0	167.79	-1.755	26.275	33.066	26.635	1441.2
167.0	168.81	-1.755	26.276	33.066	26.635	1441.2
168.0	169.80	-1.755	26.277	33.066	26.635	1441.2
169.0	170.79	-1.754	26.278	33.066	26.635	1441.2
170.0	171.85	-1.752	26.280	33.066	26.635	1441.2
171.0	172.83	-1.753	26.280	33.067	26.635	1441.2
172.0	173.83	-1.751	26.282	33.067	26.636	1441.3
173.0	174.89	-1.752	26.282	33.067	26.635	1441.3
174.0	175.86	-1.752	26.282	33.067	26.635	1441.3
175.0	176.93	-1.753	26.282	33.067	26.636	1441.3
176.0	177.90	-1.753	26.282	33.067	26.635	1441.3
177.0	178.93	-1.752	26.284	33.067	26.636	1441.4
178.0	179.96	-1.753	26.283	33.067	26.635	1441.4
179.0	180.92	-1.754	26.283	33.066	26.635	1441.4
180.0	181.99	-1.753	26.284	33.067	26.635	1441.4
181.0	182.97	-1.753	26.285	33.068	26.636	1441.4
182.0	183.98	-1.753	26.285	33.067	26.636	1441.4
183.0	185.04	-1.752	26.288	33.069	26.637	1441.5
184.0	186.01	-1.749	26.291	33.069	26.637	1441.5
185.0	187.05	-1.749	26.291	33.069	26.637	1441.5
186.0	188.04	-1.750	26.291	33.070	26.638	1441.5
187.0	189.04	-1.749	26.292	33.070	26.638	1441.5
188.0	190.10	-1.749	26.293	33.070	26.638	1441.6
189.0	191.08	-1.752	26.292	33.072	26.640	1441.6
190.0	192.14	-1.753	26.293	33.072	26.640	1441.6
191.0	193.12	-1.753	26.293	33.073	26.641	1441.6
192.0	194.12	-1.753	26.294	33.073	26.641	1441.6
193.0	195.17	-1.754	26.294	33.074	26.642	1441.6
194.0	196.14	-1.754	26.295	33.075	26.642	1441.6
195.0	197.18	-1.754	26.296	33.076	26.643	1441.7
196.0	198.19	-1.754	26.297	33.076	26.643	1441.7
197.0	199.18	-1.754	26.298	33.077	26.644	1441.7

EXPERIMENT 3037

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
198.0	200.23	-1.755	26.298	33.078	26.644	1441.7
199.0	201.23	-1.754	26.299	33.078	26.644	1441.7
200.0	202.26	-1.755	26.300	33.079	26.645	1441.7
201.0	203.24	-1.755	26.300	33.078	26.645	1441.8
202.0	204.26	-1.755	26.301	33.079	26.645	1441.8
203.0	205.28	-1.755	26.301	33.078	26.645	1441.8
204.0	206.30	-1.755	26.302	33.079	26.646	1441.8
205.0	207.31	-1.756	26.302	33.080	26.646	1441.8
206.0	208.31	-1.757	26.302	33.081	26.647	1441.8
207.0	209.36	-1.759	26.301	33.081	26.647	1441.8
208.0	210.32	-1.761	26.301	33.082	26.648	1441.8
209.0	211.40	-1.762	26.301	33.082	26.648	1441.9
210.0	212.36	-1.762	26.301	33.082	26.648	1441.9
211.0	213.39	-1.764	26.301	33.083	26.649	1441.9
212.0	214.43	-1.763	26.302	33.084	26.650	1441.9
213.0	215.40	-1.759	26.307	33.085	26.650	1441.9
214.0	216.48	-1.758	26.308	33.085	26.651	1442.0
215.0	217.43	-1.759	26.308	33.085	26.650	1442.0
216.0	218.47	-1.760	26.308	33.086	26.651	1442.0
217.0	219.50	-1.761	26.308	33.086	26.651	1442.0
218.0	220.48	-1.761	26.309	33.086	26.652	1442.0
219.0	221.54	-1.761	26.309	33.087	26.652	1442.0
220.0	222.52	-1.759	26.311	33.087	26.652	1442.1
221.0	223.55	-1.760	26.311	33.088	26.653	1442.1
222.0	224.57	-1.759	26.312	33.088	26.653	1442.1
223.0	225.55	-1.759	26.314	33.089	26.654	1442.1
224.0	226.61	-1.759	26.315	33.089	26.654	1442.1
225.0	227.58	-1.758	26.316	33.089	26.654	1442.2
226.0	228.62	-1.759	26.316	33.090	26.654	1442.2
227.0	229.61	-1.759	26.316	33.090	26.654	1442.2
228.0	230.63	-1.759	26.316	33.090	26.654	1442.2
229.0	231.65	-1.759	26.317	33.090	26.654	1442.2
230.0	232.67	-1.759	26.318	33.090	26.655	1442.2
231.0	233.68	-1.758	26.319	33.090	26.654	1442.3
232.0	234.68	-1.757	26.319	33.090	26.654	1442.3
233.0	235.74	-1.757	26.321	33.090	26.655	1442.3
234.0	236.71	-1.757	26.322	33.091	26.655	1442.3
235.0	237.76	-1.757	26.322	33.091	26.655	1442.3
236.0	238.73	-1.756	26.323	33.090	26.655	1442.3
237.0	239.76	-1.754	26.325	33.091	26.655	1442.4
238.0	240.78	-1.752	26.327	33.091	26.655	1442.4
239.0	241.79	-1.752	26.328	33.092	26.656	1442.4
240.0	242.79	-1.750	26.330	33.092	26.656	1442.4
241.0	243.85	-1.749	26.332	33.093	26.657	1442.5
242.0	244.80	-1.750	26.332	33.093	26.656	1442.5
243.0	245.85	-1.746	26.336	33.093	26.657	1442.5
244.0	246.88	-1.742	26.340	33.094	26.657	1442.6
245.0	247.87	-1.733	26.349	33.095	26.658	1442.6
246.0	248.88	-1.735	26.348	33.096	26.659	1442.6
247.0	249.92	-1.728	26.355	33.097	26.660	1442.7
248.0	250.89	-1.723	26.359	33.098	26.660	1442.7
249.0	251.93	-1.718				
250.0	252.99	-1.716	26.369	33.102	26.663	1442.8
251.0	253.93	-1.715	26.371	33.103	26.664	1442.8
252.0	254.98	-1.713	26.374	33.104	26.665	1442.8
253.0	256.01	-1.711	26.376	33.105	26.666	1442.9
254.0	256.98	-1.705	26.382	33.105	26.665	1442.9
255.0	258.01	-1.706	26.384	33.108	26.668	1442.9
256.0	259.06	-1.707	26.382	33.107	26.667	1442.9
257.0	260.03	-1.705	26.386	33.109	26.669	1443.0
258.0	261.08	-1.704	26.387	33.108	26.668	1443.0
259.0	262.07	-1.704	26.388	33.108	26.668	1443.0
260.0	263.06	-1.704	26.388	33.108	26.668	1443.0
261.0	264.12	-1.704	26.388	33.108	26.668	1443.0
262.0	265.11	-1.704	26.390	33.111	26.670	1443.1
263.0	266.11	-1.704	26.389	33.108	26.668	1443.1
264.0	267.17	-1.704	26.390	33.109	26.668	1443.1

EXPERIMENT 3037

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
265.0	268.16	-1.704	26.390	33.108	26.668	1443.1
266.0	269.15	-1.704	26.390	33.108	26.668	1443.1
267.0	270.23	-1.703	26.391	33.109	26.668	1443.1
268.0	271.18	-1.703	26.392	33.108	26.668	1443.2
269.0	272.23	-1.703	26.393	33.109	26.668	1443.2
270.0	273.26	-1.703	26.393	33.109	26.669	1443.2
271.0	274.23	-1.703	26.394	33.109	26.669	1443.2
272.0	275.29	-1.703	26.394	33.109	26.669	1443.2
273.0	276.24	-1.703	26.395	33.109	26.669	1443.2
274.0	277.29	-1.703	26.395	33.109	26.669	1443.3
275.0	278.33	-1.702	26.397	33.110	26.669	1443.3
276.0	279.29	-1.702	26.397	33.109	26.669	1443.3
277.0	280.35	-1.702	26.398	33.110	26.669	1443.3
278.0	281.35	-1.702	26.398	33.110	26.669	1443.3
279.0	282.34	-1.702	26.398	33.109	26.669	1443.3
280.0	283.23	-1.702	26.399	33.109	26.669	1443.4

EXPERIMENT 3038

TEMPERATURE. C

-2.00 -1.75 -1.50 -1.25 -1.00 -0.75 -0.50

SALINITY 0/00

32.00 32.25 32.50 32.75 33.00 33.25 33.50

SIGMAT

26.00 26.25 26.50 26.75 27.00 27.25 27.50

DEPTH M

10

100

1000



+ = INSITU FREEZING POINT

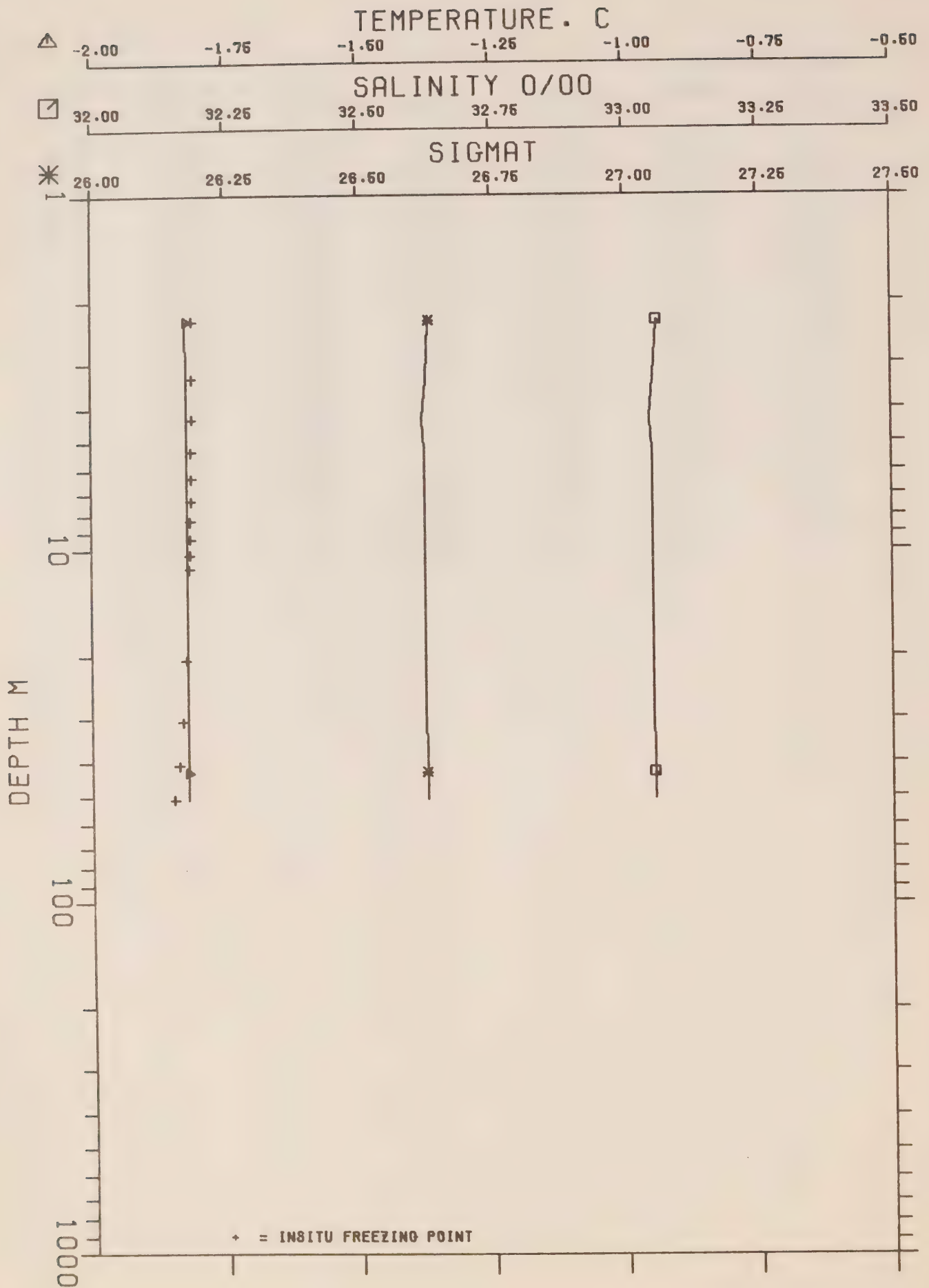
CRUISE 15-77-021 CROZIER STRAIT-77 SITE C(3)B EXPERIMENT 3038
 LAT.N. 75-30-30 LONG.W. 97-10-26 DATE 130477 G.M.T. 0230
 U.T.M. ZONE 14 8381093 N 551025 E DEPTH INCR 1.00 WATER DEPTH 92 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.62	-1.776	26.128	32.982	26.567	1438.2
3.0	3.17	-1.776	26.121	32.972	26.559	1438.2
4.0	4.22	-1.775	26.118	32.966	26.554	1438.2
5.0	5.23	-1.773	26.118	32.963	26.551	1438.3
6.0	6.26	-1.772	26.118	32.962	26.551	1438.3
7.0	7.15	-1.772	26.118	32.962	26.551	1438.3
8.0	8.22	-1.772	26.119	32.962	26.551	1438.3
9.0	9.20	-1.772	26.119	32.961	26.550	1438.3
10.0	10.18	-1.772	26.120	32.962	26.551	1438.3
11.0	11.22	-1.772	26.120	32.962	26.551	1438.4
12.0	12.22	-1.770	26.123	32.963	26.552	1438.4
13.0	13.22	-1.770	26.122	32.961	26.550	1438.4
14.0	14.27	-1.771	26.123	32.962	26.551	1438.4
15.0	15.26	-1.771	26.124	32.963	26.552	1438.4
16.0	16.22	-1.770	26.125	32.963	26.552	1438.5
17.0	17.24	-1.770	26.125	32.963	26.552	1438.5
18.0	18.28	-1.769	26.128	32.964	26.553	1438.5
19.0	19.26	-1.769	26.128	32.965	26.553	1438.5
20.0	20.28	-1.769	26.128	32.964	26.552	1438.5
21.0	21.31	-1.769	26.129	32.964	26.553	1438.5
22.0	22.22	-1.769	26.129	32.964	26.553	1438.6
23.0	23.25	-1.769	26.129	32.964	26.552	1438.6
24.0	24.28	-1.768	26.131	32.964	26.552	1438.6
25.0	25.27	-1.768	26.132	32.964	26.552	1438.6
26.0	26.23	-1.768	26.132	32.964	26.553	1438.6
27.0	27.26	-1.767	26.133	32.964	26.552	1438.7
28.0	28.30	-1.767	26.134	32.964	26.553	1438.7
29.0	29.26	-1.765	26.136	32.965	26.553	1438.7
30.0	30.29	-1.765	26.137	32.965	26.553	1438.7
31.0	31.32	-1.764	26.139	32.966	26.554	1438.7
32.0	32.34	-1.763	26.141	32.968	26.555	1438.8
33.0	33.29	-1.763	26.141	32.968	26.555	1438.8
34.0	34.35	-1.761	26.146	32.971	26.558	1438.8
35.0	35.33	-1.761	26.148	32.973	26.560	1438.8
36.0	36.32	-1.761	26.149	32.974	26.561	1438.9
37.0	37.39	-1.761	26.150	32.976	26.562	1438.9
38.0	38.32	-1.761	26.151	32.976	26.562	1438.9
39.0	39.38	-1.761	26.152	32.976	26.562	1438.9
40.0	40.35	-1.761	26.152	32.976	26.562	1438.9
41.0	41.33	-1.761	26.153	32.977	26.563	1438.9
42.0	42.39	-1.761	26.154	32.978	26.564	1438.9
43.0	43.33	-1.761	26.155	32.979	26.564	1439.0
44.0	44.40	-1.761	26.156	32.979	26.564	1439.0
45.0	45.40	-1.761	26.156	32.979	26.564	1439.0
46.0	46.38	-1.761	26.157	32.979	26.565	1439.0
47.0	47.32	-1.761	26.157	32.979	26.565	1439.0
48.0	48.31	-1.761	26.158	32.980	26.565	1439.0
49.0	49.36	-1.761	26.158	32.981	26.566	1439.1
50.0	50.32	-1.762	26.160	32.982	26.567	1439.1
51.0	51.36	-1.761	26.160	32.981	26.566	1439.1
52.0	52.35	-1.761	26.161	32.982	26.567	1439.1
53.0	53.31	-1.761	26.161	32.982	26.567	1439.1
54.0	54.34	-1.761	26.164	32.985	26.569	1439.2
55.0	55.28	-1.761	26.166	32.987	26.571	1439.2
56.0	56.26	-1.761	26.169	32.990	26.574	1439.2
57.0	57.29	-1.761	26.171	32.992	26.575	1439.2
58.0	58.22	-1.760	26.174	32.995	26.577	1439.2
59.0	59.19	-1.760	26.175	32.996	26.578	1439.3
60.0	60.09	-1.760	26.175	32.996	26.578	1439.3
61.0	60.62	-1.760	26.176	32.996	26.578	1439.3
62.0	61.28	-1.760	26.177	32.997	26.579	1439.3
63.0	62.14	-1.760	26.177	32.997	26.579	1439.3

EXPERIMENT 3038

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
64.0	63.15	-1.760	26.178	32.998	26.579	1439.3
65.0	64.24	-1.760	26.179	32.998	26.579	1439.3
66.0	65.57	-1.760	26.179	32.997	26.579	1439.4
67.0	66.21	-1.759	26.180	32.998	26.580	1439.4
68.0	67.37	-1.760	26.180	32.998	26.579	1439.4
69.0	68.29	-1.760	26.180	32.997	26.579	1439.4
70.0	69.07	-1.760	26.181	32.997	26.579	1439.4
71.0	70.09	-1.760	26.181	32.997	26.579	1439.4
72.0	71.35	-1.760	26.182	32.998	26.580	1439.5
73.0	72.13	-1.759	26.182	32.998	26.580	1439.5
74.0	73.51	-1.759	26.183	32.997	26.579	1439.5
75.0	74.57	-1.759	26.183	32.997	26.579	1439.5
76.0	75.24	-1.759	26.184	32.997	26.579	1439.5
77.0	76.43	-1.758	26.188	33.002	26.583	1439.6
78.0	77.62	-1.757	26.189	33.002	26.583	1439.6
79.0	78.35	-1.757	26.191	33.004	26.585	1439.6
80.0	79.50	-1.757	26.191	33.003	26.584	1439.6
81.0	80.60	-1.755	26.196	33.007	26.587	1439.6
82.0	81.51	-1.755	26.197	33.008	26.588	1439.7
83.0	82.19	-1.755	26.198	33.009	26.589	1439.7
84.0	83.25	-1.755	26.198	33.009	26.589	1439.7
85.0	84.49	-1.755	26.199	33.009	26.588	1439.7
86.0	85.21	-1.755	26.201	33.011	26.590	1439.7
87.0	86.26	-1.755	26.202	33.011	26.590	1439.7
88.0	87.24	-1.755	26.202	33.011	26.590	1439.8
89.0	88.15	-1.755	26.203	33.012	26.591	1439.8

EXPERIMENT 3039



CRUISE 15-77-021 PULLEN STRAIT-77 SITE P(3)B EXPERIMENT 3039
 LAT.N. 75-26-32 LONG.W. 96-05-53 DATE 210477 G.M.T. 2040
 U.T.M. ZONE 14 8374755 N 581462 E DEPTH INCR 1.00 WATER DEPTH 54 M

DEPTH (M)	PRESSURE (DBARS)	TEMP (DEG.C)	COND (MMHO)	SALINITY (0/00)	SIGMAT	SOUND (M/SEC)
2.0	2.26	-1.821	26.149	33.062	26.633	1438.1
3.0	3.29	-1.820	26.146	33.055	26.628	1438.1
4.0	4.30	-1.820	26.140	33.047	26.620	1438.1
5.0	5.30	-1.820	26.144	33.051	26.624	1438.2
6.0	6.30	-1.820	26.144	33.052	26.625	1438.2
7.0	7.30	-1.820	26.145	33.052	26.625	1438.2
8.0	8.31	-1.820	26.145	33.052	26.625	1438.2
9.0	9.32	-1.820	26.146	33.052	26.625	1438.2
10.0	10.34	-1.820	26.146	33.051	26.624	1438.2
11.0	11.36	-1.820	26.147	33.052	26.625	1438.3
12.0	12.39	-1.820	26.147	33.052	26.625	1438.3
13.0	13.41	-1.820	26.148	33.052	26.625	1438.3
14.0	14.42	-1.820	26.149	33.052	26.625	1438.3
15.0	15.45	-1.820	26.149	33.052	26.625	1438.3
16.0	16.45	-1.820	26.149	33.052	26.625	1438.3
17.0	17.46	-1.820	26.150	33.053	26.625	1438.4
18.0	18.46	-1.820	26.151	33.052	26.625	1438.4
19.0	19.47	-1.820	26.151	33.053	26.625	1438.4
20.0	20.47	-1.820	26.151	33.052	26.625	1438.4
21.0	21.49	-1.820	26.152	33.053	26.625	1438.4
22.0	22.49	-1.820	26.152	33.053	26.625	1438.4
23.0	23.49	-1.820	26.153	33.053	26.625	1438.5
24.0	24.51	-1.820	26.154	33.053	26.626	1438.5
25.0	25.53	-1.820	26.154	33.053	26.626	1438.5
26.0	26.52	-1.820	26.155	33.053	26.626	1438.5
27.0	27.55	-1.820	26.155	33.053	26.626	1438.5
28.0	28.55	-1.820	26.156	33.053	26.626	1438.5
29.0	29.58	-1.819	26.156	33.053	26.626	1438.6
30.0	30.61	-1.819	26.157	33.053	26.626	1438.6
31.0	31.61	-1.819	26.157	33.053	26.626	1438.6
32.0	32.65	-1.819	26.158	33.053	26.626	1438.6
33.0	33.65	-1.819	26.158	33.054	26.626	1438.6
34.0	34.66	-1.819	26.159	33.054	26.626	1438.6
35.0	35.67	-1.819	26.159	33.054	26.626	1438.7
36.0	36.64	-1.819	26.160	33.054	26.627	1438.7
37.0	37.65	-1.819	26.161	33.055	26.627	1438.7
38.0	38.65	-1.819	26.161	33.054	26.627	1438.7
39.0	39.68	-1.819	26.161	33.054	26.627	1438.7
40.0	40.72	-1.819	26.162	33.055	26.627	1438.8
41.0	41.73	-1.819	26.163	33.055	26.627	1438.8
42.0	42.73	-1.819	26.163	33.055	26.627	1438.8
43.0	43.71	-1.819	26.164	33.055	26.627	1438.8
44.0	44.71	-1.819	26.164	33.055	26.627	1438.8
45.0	45.72	-1.819	26.165	33.055	26.627	1438.8
46.0	46.75	-1.819	26.165	33.055	26.627	1438.9
47.0	47.79	-1.819	26.166	33.055	26.628	1438.9
48.0	48.79	-1.819	26.166	33.055	26.627	1438.9
49.0	49.75	-1.819	26.167	33.055	26.628	1438.9
50.0	50.63	-1.819	26.167	33.056	26.628	1438.9

